

Journal of Behaviorology

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Behaviorology

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NOTE: Prior to Volume 16, Number 1 (Spring 2013) the *Journal of Behaviorology* went by the name of *Behaviorology Today*, which occasionally published fully peer-reviewed articles, explicitly so labeled. Beginning with Volume 15, Number 1, *all* new material receives full peer review. See the "Submission Guidelines" for details.

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* This issue does not contain any TIBI course syllabi. New syllabi, or updates of previous syllabi, may appear in future issues. (See the *Syllabus Directory* for details.)

Editorial

Philip R. Johnson

University of Arizona Tucson

Another watershed moment in the evolution of this behaviorology journal has arrived. During the TIBI 26th *Behaviorology Anniversary Convention* in Tucson AZ, TIBI Board Members met and unanimously voted to change the name of this journal from *Behaviorology Today* to *Journal of Behaviorology*, beginning with Volume 16, Number 1. This represents a second change to the name of the journal. The first four volumes appeared as a newsletter entitled *TIBI News Times*; then the title changed to *Behaviorology Today* for 11 volumes, through Volume 15, Number 2.

Volume 15, Number 1 of *Behaviorology Today* marked the beginning of *full* peer review for all articles in the journal. Prior to that issue, articles were peer reviewed on an occasional basis. TIBI Board Members agreed that, with the inclusion of full peer review, the title *Journal of Behaviorology* would serve to better represent the journal among scientific scholars.

The TIBI 26th *Behaviorology Anniversary Convention* (on 29 May–1 June 2013) included presentations, papers, and panel discussions on a wide variety of topics. The papers addressed behaviorological science (one paper by Lawrence Fraley, and another by Matthew Lewon, a doctoral student at the University of Nevada, Reno), potential behaviorology undergraduate and graduate curricula (a paper by Stephen Ledoux), behaviorology and public education (a paper by Michael Rauseo, a doctoral student at the University of the Rockies), clinical behaviorology (one paper by John Ferreira, and another by Philip Johnson), and applied behaviorology (a paper by Stephen Ledoux). Faculty from the Special Education Program at the University of Arizona (Stephanie Macfarland, Phyllis Brodsky, and Dan Perino) gave an informative presentation on a grant-funded project providing opportunities in higher education to students with significant intellectual disabilities. These sessions offered a wide-ranging look at applied, scientific and philosophical aspects of behaviorology, and provided attendees with opportunities to engage in extended discourse with their behaviorological colleagues.

On a further note, one of the panel discussions at the convention, *Topics Needing Books or Research Articles and How We Can Engineer Their Coverage*, produced a number of interesting topics waiting to be addressed in the behaviorological literature. These included:

- ✂ Behaviorology helping to solve global problems,
- ✂ Behaviorology and medicine,

- ✂ Behaviorological treatment for addiction,
- ✂ Behaviorological interventions/strategies for coaches,
- ✂ Behaviorological therapies, and
- ✂ Behaviorological diplomacy.

Many other topics arose in that discussion. I encourage all behaviorologists to research and write about the topics and issues and concerns with which they are involved, and to submit papers for publication in this journal. In addition, a number of convention presentations will make worthy submissions for inclusion in future issues of the *Journal of Behaviorology*. There is still a great need to enhance and expand the literature of the natural-science behaviorology discipline.

This issue features two articles. Both recount historical events occurring near the origins of official recognition of the separate and independent status of the discipline of behaviorology. The first article is the transcript of the meeting that occurred in May 1987 during which “nine radical behaviorists met on the eve of the thirteenth ABA convention in Nashville, Tennessee... to recognize formally the distinctive nature and independence of this scientific discipline [behaviorology]” (Fraley & Ledoux, 2002, p. 89). The second article is a transcript of an interview that took place on the local public radio station in Canton NY, in August 1988, just prior to the first annual behaviorology convention. During this interview, interviewees addressed a number of questions pertaining to radical behaviorism and the scientific study of human behavior. CD copies of this interview are available for \$12 apiece. (See the advertisement for the CDs on page 20 in this issue.)

On a final note, our convention is returning to Canton, NY. The TIBI 27th *Behaviorology Anniversary Convention* is scheduled to occur during the second half of May 2014 in Canton. (See the announcement on page 21 in this issue.) If you are interested in presenting a paper, poster, panel discussion, and so on, please contact me (johnsonp@email.arizona.edu) so I can send you the details on proposal contents. I look forward to seeing you at the convention.✂

References

- Fraley, L. E. & Ledoux, S. F. (2002). Origins, status, and mission of behaviorology. In S. F. Ledoux (Ed.), *Origins and Components of Behaviorology—Second Edition* (pp. 33–169). Canton, NY: ABCs.✂

Highlights of the May 1987 Meeting that Began the Formal Recognition of the Separate and Independent Behaviorology Discipline

Introduction

Stephen Ledoux (who is authoring these comments) had openly made an incomplete tape recording, on c-90 cassette tapes, of the 1987 meeting at which nine concerned natural scientists of behavior formally and officially began recognizing the separate and independent natural-science discipline of behaviorology. Within months he had edited a typewriter-produced transcript from that incomplete recording, and distributed it to the meeting attendees plus a few others; over the years from then until now, no one has ever provided any comments disputing the accuracy of the transcript. The present transcript features minimal editing of that typed transcript, mostly to clean up previous punctuation and spelling errors and to make the transcript electronically suitable for current publication.

The meeting occurred from 7 P.M. until past 10 P.M. in the Appalachian Room of the Opryland Hotel in Nashville, TN, on Sunday, 24 May 1987, just before the Thirteenth Annual Convention of the Association for Behavior Analysis (ABA). These nine natural scientists attended the meeting:

- ✧ Lawrence Fraley (**LF**—West Virginia University in Morgantown)
- ✧ Sigrid Glenn (**SG**—North Texas State University in Denton)
- ✧ Douglas Greer (**DG**—Columbia University in New York City)
- ✧ Joe Layng (**JL**—Enabling Technologies Inc., in Chicago IL)
- ✧ Stephen Ledoux (**SL**—State University of New York in Canton)
- ✧ Jack Michael (**JM**—Western Michigan University in Kalamazoo)
- ✧ Mark Sundberg (**MS**—Sundberg & Associates, in Concord CA)
- ✧ Ernest Vargas (**EV**—West Virginia University in Morgantown) and
- ✧ Julie Vargas (**JV**—West Virginia University in Morgantown).

Ernest Vargas organized and chaired the meeting. The transcript occasionally includes paraphrased summaries

(always in parentheses) of some of the points made, and the issues and topics touched upon, at the meeting. To preserve historical accuracy, the transcriber also added small amounts of commentary to the content of these summaries, and these summaries and commentaries remain in the present transcript version. Unfortunately, of course, where summaries occur, they cannot do justice to the full breadth and depth of the analyses that were actually present at the meeting, as listening to the recording itself would indicate. Indeed, many summaries include fairly exact quotations, but these are not indicated as such, due to the nature of the recording medium (i.e., some speaking could not be identified). Aside from the fact that not all of the meeting was taped (i.e., parts of the discussion occurred between the end of each c-90 side and the beginning of the next side) not all of the recorded discussions are included here, particularly those that one could not hear reasonably clearly on the tape due to confounding sounds. Responsibility for the judgment regarding what to include here and what not to include rests solely with the recorder/transcriber. Of course, every effort has been made to reflect fairly and accurately all of the important points, issues, topics, conclusions, and plans that occurred at, and came out of, the meeting.

The recorder retained the original tapes, and made a clear and complete copy of them. He sent this copy to the West Virginia University members of the new organization (because the group had appointed them an administrative task force for the group). Luckily, the copy was made prior to transcribing the tape, because in the transcription process, small portions of the original recording, on the first half of side one, seem to have been lost, due to machine difficulties, and could not be clearly included in the transcript. (The usability of the original c-90 cassette tapes has not well survived the ravages of time passage; the status of the West Virginia copy is not known at this time.)

In the transcript, the speakers' initials, in **bold**, identify each speaker. However, the absolute accuracy of these identifications cannot be guaranteed in all cases due to the occasional poor quality of the recording and to the similarity of some voices (e.g., differentiating between the voices of Joe Layng and Doug Greer was the most common problem).

The Meeting

EV—[Opening Remarks] Overall, we are here to discuss setting up a professional organization committed, dedicated, to furthering the science of behavior. Three things we need to discuss in order to accomplish this [are]: (1) a name that we could all agree on, (2) the steps we would take, and (3) the problems we might encounter and their initial solutions. We should probably prefer to have consensus agreement about the subject, especially among people who are under the same kinds of controls, which I think we all are under or we would not be meeting together like this. I'll stop, with that brief preamble, and open the floor for further comments.

SL—Most basically, recognizing a discipline requires having an organization which sets both its own goals and its own requirements for membership. We can essentially do that tonight.

EV—“Behaviorology” would be a possible title which states accurately what we are concerned with. “Ology” is the common suffix to add to the subject matter of a discipline so as to name a discipline. This name has come up before: Los Horcones has been using it this way for ten years, since 1974; Samaan adopted it with the present usage in 1973; Stephen (Ledoux) and Larry (Fraley) are expanding a paper on the relevant background on the name [see Fraley & Ledoux, 2002]; and it has come up independently in Germany. My own reasons for preferring this name were not governed by my academic verbal community but by the folks I deal with in daily life. When my barber asked what I do, I said “behaviorologist”; he said “That’s studying behavior?” “That’s right” [I said]. “Oh, OK, I have a niece who behaves this way...” Then I was at the dentist and the hygienist asked what discipline I was in. I said “Behaviorology.” [Her response was] “Oh, uh, study of behavior?” “That’s right,” I said. And there was a little pause as she poked away at my teeth... “Well, that’s different from psychology” [she continued]. That’s right. And then another pause; I didn’t tell her the difference, so as to see what she would say. “Well I guess psychologists study the mind and you people study behavior, right?” And I said that’s right, and I began to be convinced. Well, by golly, the lay public knows what the name means too... and it struck me that it would just make it so much easier to talk to other people about what we are about if we used a term of this sort.

SL—A term that the lay public easily understands is important, because our interest in the long run is especially to convey our science to them. They are the ones we need to reach.

JL—This brings up the question of who is the audience for this name. Whose behavior do you want to change by this name? Government granting agencies and/or universities that maintain people in the area, and/or the lay public. Behaviorology is probably better than behavior analyst for the lay public. The problem is there are “ologies” out there which are not science, like astrology. Whenever anyone wants to try to legitimize themselves they put “ology” on the end. On the other hand, cognitivists who don’t want to associate with psychology are now calling their field “cognitive science” rather than “cognology” or something. So we must look at the costs and benefits of different names. My tendency is to prefer something like behavior science even though that too has problems. So called cognitive scientists don’t have to deal with a whole field where historically everything has been lumped together. Others might think “behavior science” also lumped everyone together, like sociologists, psychologists, behaviorists, etc. So it depends on the audience and the history of the field.

JV—It seems to me that we are better off coining a new term than using an old one, particularly if we are going to get into the area of credentialing. One of the reasons for forming a professional discipline is to credential, so that not just anyone with any training (or none) could hang out a shingle...

DG—That raises the point about the distinction between the basic science and the service deliverer, the practitioner. Is the name to describe the service industry or the basic science? I would see behaviorology as the basic science, and anyone could use the technology derived from it, just as physicians use biology. I would like to separate the applied functions from the science.

JL—The distinction is between the discipline and using the discipline to deliver services for direct remuneration. The discipline is more than teaching people to apply portions of it to their tasks.

JM—Another aspect of applied work is licensing, which I don’t think we are prepared to approach. The APA may just add behaviorology to its list of things only licensed psychologists can do. ABA is currently trying to do some work in this area, with certification, and it may have some impact.

DG—Unless its education. That is the inconsistency of the licensing situation.

(At this point a bit of interchange occurred on the problem of licensing and how it may relate to us, and to teaching/education...)

SL—I think the important point Jack (Michael) is raising is that the licensing issue is one that is way down the road from here, and what we are trying to do is to prepare that road.

LF—There are probably 30 or 40 other disciplines in which behavior is important, and all these kinds of activities go on in those disciplines. It is not very clear cut whether psychologists, formally credentialed types, have to step into these other disciplines to help them tend to their businesses or not, like education and some of these others. There is plenty of frontier out there in the applied area, I think, to move into without picking this direct fight with the formally credentialed psychologists.

SG—It seems like if we would get departments or training places where we could train people in behaviorology, they could go out and be psychologists or rehabilitation specialists and whatever they wanted to be, and basically be behaviorologists when they do it. And because I believe that those people would do a good job, the rest of the people would eventually fade away.

DG—I think the more credentials we can give all the people, while they are becoming behaviorologists, the better. Let's have certified supervisors, certified teachers, whatever.

SL—I was speaking to someone from California who runs a program at Cal State University in Sacramento, a "certificate in behavior modification" program, and the history of that is that the state personnel board came to them and said, "the mental hospitals were opening up some new jobs for bachelor's and master's degree people with behavior skills, and would you help us set up a program and do the certification? We want them to do something that works. We don't want them to just know all this psychology stuff. We want them to do stuff that we found works in our institutions." That was behavior analysis. When people want something that works, they turn to what is currently being called behavior analysis.

JL—I think another important point is that at this point in history, given what has happened to cognitive psychology and cognitive science, what is interesting is the people that call themselves cognitive scientists have basically broken from psychology and they have done this apparently completely. Many universities now have separate cognitive science departments. They do not consider themselves psychologists when you talk to them, and they are scientists of cognition. However, they supply data and information which cognitive psychologists can then use for their research, and so I see nothing wrong with having behavioral psychologists in psychology

departments. The focus needs to be in there and the position must be clear in terms of how people perceive it as a basic science which provides this for psychology.

DG—I think that's a critical issue. I don't like to think of psychology or education as a discipline. I like to think of it as a job. A discipline is a science. Like anatomy and physiology and chemistry is a discipline. Being a pharmacist is a position. One can be any of those things and yet have credentials as a scientist of behavior or behaviorologist.

SG—I think we would be less likely to have psych departments and various other departments fight us if we simply say we are providing knowledge for their people. They will be better whatever they are if they have this. This may help keep them from wiping us out.

DG—We just need to get technology to the clientele and the work and the people will take care of it at that level. We need to protect the discipline among universities so it does not get lost in the shuffle.

SL—The problem is, now it's getting lost in the shuffle. Because it's seen as part of psychology.

DG—I don't think psychology to me has really changed. They call it cognitive science. It used to be Gestalt. I don't see much difference. It's still a mentalistic orientation, so it hasn't really changed.

JL—The difference is not in the subject matter; the difference is the consequences they now yield and how they are shaping the study of behavior now and in the future. I work in both the academic and business worlds. I know the cognitive scientists in the business world now hold the sway. At training presentations the outside evaluations are done by these cognitive scientists. They would be offended if I called them psychologists. They're always the ones that are evaluating whether the program I am offering is valuable. They have a tremendous amount of clout. That's what has concerned me. What they have done is position themselves as the science of cognition. They are the scientists, the basic researchers. They "know" the basic facts. You are just a practitioner. When you say that that is not all you are, well, you just can't compete against them. My major concern is that we may get economically squeezed out, or minimized for a long time, unless something is done to give us the visibility and the positioning that separates us as a place where you can get information out as a basic science and apply it to real problems.

SL—What is needed is an alternative situation where you could argue with the owners saying “don’t bring in the cognitive scientist to evaluate me; bring in the behaviorologist because that is what I’m doing.” With an organization, you would have an alternative.

(At this point a substantial discussion occurred on how to view the success of OBM graduates from Western Michigan University and elsewhere. This exchange evolved into a discussion about the so-called death of behaviorism and the relation of pure and applied sciences.)

JL—The students I talk with at the University of Chicago and so on are very concerned. It’s usually a multi-discipline program from variegated areas, and you say behaviorism or behavioral psychology and they say “But isn’t that gone now? I didn’t know that anybody does that anymore. That’s history.” As a matter of fact, on the State of Illinois [psychology?] licensure examination, behaviorism is under the history section.

EV—It strikes me that we are talking about behaviorology having the same relation to the behavioral sciences as physics has to the physical sciences. And that secondly, if we accept that, we can step aside from a number of other kinds of problems that presently plague all other current terms.

SG—I think that the long term goal for behaviorology would be to eventually get people trained in behaviorology inundating psychology departments, rehabilitation departments, and so forth. So places like Western Michigan, for example, are already there. In the long term that would be what we want to do. To train people in behaviorology to go out and take over all those departments.

SL—It may actually work that way, but I think your earlier point that those departments would disappear as an effective science takes over, may be better. In the long run I think it’s not just those departments. It’s all those other human services and human behavior disciplines.

DG—The best way to diffuse the science of behavior is to make sure the teachers and psychologists and social workers (which is a field that is virtually untapped) draw from this science, and at the same time make sure that they know that there is a distinct science. Psychology does a little of this, but there is a science of behavior and people need to write about it... Stephen J. Gould at Harvard needs to write about the science of behavior. How do we go about doing that?

LF—Well, we need to create some departments that give Ph.D.s in behaviorology. We are here to organize the discipline, but it would follow then that there would be training opportunities in it so that people could go into all these applied areas. I would like to turn out people who would come in with an interest in law, for example, and go back to the law school and become a faculty member in a law school with, instead of the cognitive science that all those people have, with the behaviorology basic science to apply there. My wife is a lawyer and she went through law school and they didn’t say one word the whole four years that made behavioral sense.

SL—Yet that is the basic key. To what extent are our students less efficient now, simply because they can’t just study the basic science and the philosophy behind it, and maybe some of the applications, because they have to spend the time studying a bunch of other things which the current [psychology] discipline says are part of any degree? Because it’s not our own discipline, they can say “you have to study the cognitive science, you have to study Gestalt, you have to study perception, at least a little bit.” But a lot of little bits add up. It all takes away from what a student can learn in the basic science. And a named separate discipline, with a professional organization, could say to colleges “You are not up on things unless you also have a department of behaviorology.” And then students can go and take those courses, get into this discipline, and go out into those other fields.

DG—What you are describing is setting up power bases in colleges, but that has little to do with how good the basic science is.

EV—I disagree in part, Doug. The good news is that a lot of folks are calling you to supply the people they need. The bad news is obviously you can’t supply them. I think that is what we are addressing. Why can’t these professionals be supplied? They can’t be supplied, because you are only one behaviorologist in a faculty of 130 in your college. There’s no department to supply them. The question is not to put a science in place, for we already have a science. What we don’t have is professional infrastructure which would facilitate the growth of that science. Secondly, we don’t have a professional infrastructure which would guard that science or keep it from being inhibited by other arrangements. We don’t have, for example, representatives of that science in the leading scientific journals of this country. Take a look at *Science* magazine. It’s the headmast of the science magazines in this country. Aside from Skinner’s “Selection by Consequences” a few years ago, you just don’t find any behaviorological articles in there. [For

one recent change in this situation, see Ledoux, 2012a, in *American Scientist*, which has a distribution of over 80,000 compared to *Science's* less than 8,000.—Ed.] We all face constant struggles even to have our first amendment rights to teach our own intellectual beliefs in academic settings. That's what this is about. It's the sociology that we are contending ourselves with and not necessarily the scientific facts of our discipline.

SL—Not having to turn down 50 students a year is the justification for a department of behaviorology right where you are, with fifteen faculty members dealing with those students.

EV—There is a chicken and egg problem. You cannot hatch a department without having the professional organization with that kind of name. You come to a point where you have to hatch both at the same time. You have to have the professional organization and you have to have a department both helping each other. When you are proposing the recommendation to the administration in an academic setting of “let there be a department of behaviorology,” naturally he or she looks to the professional organization that represents that discipline. There must be some assurance that there are some folks out there that call themselves behaviorologists and seem to be getting jobs in the market place. When you talk to state legislators about the types of credentialing activities that occur in terms of individuals evaluating programs and mental health institutions and so forth, they come to you asking: “Who is your professional organization? Who are the board of governors? Can these individuals specify what are the criteria by which behaviorologists can do a job in evaluating a facility here that is practicing behavior modification?”

DG—In some ways all of us are trying to do that. I've almost got the State of New York to the place where I can do that. That's part of my problem. What do I do? Now the name's changed.

SG—We all have the same problem. I finally got them convinced that behavior analysis is something different from the rest of everything. Now we say we are really not behavior analysts, we are behaviorologists.

JL—There are models of this. Let's go back to cognitive science. There wasn't any 12 years ago. How did they change the name? How did they get into departments?

JM—But that's a different problem.

JL—I agree that it's a different problem, but one of the things I brought up earlier is the alliances that they made

early on that put them with others who already had some clout and power. Unfortunately, it was the military that was their most supportive ally, since artificial intelligence work was supported by the military. But they also had a couple of Noble prize winners come out and talk about them. All this had a major impact. To have a similar type of impact, there has to be some type of alliances that have to be made with disciplines, and draw in those that are well known within those disciplines, which gives legitimacy to the new discipline. That's the fastest way to gain legitimacy and gain visibility. Have someone well established in another discipline, like Marvin Harris, recognize the new discipline. I think part of the reason this hasn't occurred is [that] behavior analysis, so far, has somewhat isolated itself from other disciplines. We're not as in touch with the biological researchers as we might be; we're not as in touch with the ecological researchers. That doesn't mean we have to sacrifice any of our views of the world, the way we analyze, but there's some things we do which can contribute and vice versa. There are allies out there that I think we can foster, and that we haven't done a very good job of it.

JM—I think there is a critical factor about the cognitive-science people though. We don't have, I think, any allies who are discontent because they do not have a home themselves. The cognitive-science people were a coalition of people all of whom were from several disciplines, and were kind of in between. They are not exactly a part of their field but they were not discontent with their fields. It was all closely linked with the development of computers. They had more interest in computers than they had in their own discipline. So they had more in common with other people that were interested in computers in other disciplines. We don't exactly have the same issue. There is no one else really discontent with their discipline. Even Marvin Harris in anthropology is not discontent with being called an anthropologist. We don't have a bunch of people like that, who are not discontent. We might be forming a new bunch of coalitions with people who are just going to be friends. But they're not going to want to get out of their fields and become behaviorologists. It doesn't seem to me that they have the same interest as the behavior scientist.

JL—Yes, I agree with that. I think that's a good point.

SL—I think the point you're making though, Joe, is well taken. As a natural science, if Stephen J. Gould wrote on behaviorology, that would certainly be helpful.

(At this point side one of the tape ran out. Some minutes passed before this evoked flipping the cassette over, which began side two.)

JM—But how would this organization do what has not been done? Behaviorologists could be just as discriminated against by cognitive scientists. What would this group do to promote a better system?

JL—That question is essential. What is in it for a dean to have a department of behaviorology?

JV—I don't see a separate department so much as, at the beginning, separate programs. You can have a program without having an academic unit. First of all I think that one of the problems with working in the orientation that we have is that people get very confused with what you are talking about. I would personally like to see behaviorology fairly narrowly defined as the basic science so that, for example, things like the Johnston and Pennypacker, and Sidman type of research would be legitimized more than they are now. I just came back from Los Horcones; they want to submit an article to JABA but can't because JABA requires the two observer and interobserver reliability. I would like to see us draw a line around what the field consists of, and give it a name so that it is clearly discriminable. One of the things that I would like to see done is to do a handbook of behaviorology which would define the field. I would like to see some consensus, especially something in the field of verbal behavior, something where the people involved would get together and agree and that would be the chapter in the introductory handbook, so that it would be a discriminable field with a discriminable title.

SL—That is an important project, because it might help us in what I would think of as our bottom line. There are a lot of behavior analysts and applied behavior analysts out there, of all sorts (and I use the terms now in the broadest sense, including, say, social workers, even though, they might not "know" it). The point is, any applied behavior analyst would be more effective if they had that basic philosophy as well as the basic science background behind them, and we can't get that to them. This is the advocacy of a group like this.

JM—The problem is not just getting it to them. The problem is that it is not like something that, if it's made available, it will be snatched up quickly. It is something that has to be persuasively presented in such a way to counter any arguments. In a sense, what you are talking about is not getting to somebody but rather drastically altering their current beliefs and their current philosophical and scientific repertoire.

EV—But we can do that best when we organize and so be able to do that effectively. You're not going to get anywhere by writing papers for *The Behavior Analyst* saying that

you should have a four year course or curriculum this way and then compromise in that curriculum because we happen to be in the department of psychology. The only way we ever get the kind of curriculum you suggested is to eventually formulate a discipline of behaviorology and specify that this is the curriculum under which people will learn that discipline. Right now the departments of psychology are driven by the professional organization of psychology. You're not going to turn out behaviorologists, much less even half-way good behavior analysts, whatever they are, given the kind of training circumstances we have in any department in this country. You can't name one department in which there is a full fledged radical behavioral curriculum, including Western Michigan.

JM—You can probably make similar criticisms of other sciences in which a person with a particular perspective could probably say that there are very few departments that are pure. Aside from that issue, the only thing concrete that we have talked about is the suggestion of having a handbook. I can think of something that seems to me like a preliminary step even to the handbook. It seems to me that as more and more people begin to use the word behaviorology in their presentations, even in passing, and as more people get used to the terms, and more articles are published on it with that not as the topic but rather with that as the name of the topic (in other words as a shorthand way almost for the term behavior analyst, etc.) then as that term becomes more common, then a handbook of behaviorology could well develop. But that's sort of an evolutionary development that may well take place if enough people do it.

SL—Wouldn't it be helped, though, if we had a group as an organization which had the name as well?

JM—It might.

LF—Well, some of us really need it. I am working now with some other people in an effort to get a program emphasis or a specialization in behaviorology. But there's a political move always to combine us with traditional psychologists, because we are seen as some kind of a pimple sticking out of psychology, and once that happens we are immediately stifled and prevented from any effective action we might have simply by being outnumbered.

JM—I'm not very much involved in organizational management so I'm not clear how it would take place, but I have no idea how this group could help you.

LF—If there were such a thing as an association of behaviorologists to which I belonged, which gave the

discipline a disciplinary identity which I could put by my name, it would allow me for one thing to walk in and say I am not one of those psychologists over there into which you keep trying to thrust me.

JM—Would it have any significance until the organization had some status?

LF—It has got enough right here. This is it. (Four or more other voices confirm affirmative.)

JV—It's kind of like when you have a journal. You go and get this number, ISSN, and once you've got that, you're legitimized. It doesn't matter how many issues you have. I'm not making this up. There is an organization and they don't care how many members are in it.

SG—What you're saying is, we could establish The American Society of Behaviorologists.

JV—International (Society of Behaviorologists).

JM—What do the Associations include? Do they call themselves international? I don't think we have to have International. Couldn't we just say The Association of Behaviorologists?

LF—I would argue the point for "of" because it's an association *of* the people who have this appropriate science and the philosophy of that science.

SL—And even the technologies.

DG—I think there is another level of issue involved here. The issue of a group to support the science and/or the epistemology. You have to be very careful when doing one or the other sometimes.

SL—Without the epistemology, we've got ABA.

DG—Then there's the advocacy of a professional group and that I think is better done with the organization like ABA. And then there is the level that has to do with "My God I need a friend who understands what in the world is going on out there. I'm being crucified politically," and I can understand that really well. I have always been the only behaviorist, except for a short period of time, in my situation. I really see that *that* is really the establishing operation for the responses we are getting. And how does a small group or organization serve to deal with that? You're talking about how do I go around and sell behaviorism to people who are talking about cognitive science.

JL—The problem is that you cannot sell, because they don't want to buy, because that's their turf and they will not let you in regardless of what you say. That's the difference. But I don't want that person there in the first place; that's my point. Coming back to what we were talking before: How are you going to set up a program to have an influence and develop behaviorology? One of the things is you look around and much of what you see you lump with psychologists and can you bring this in? As Jack (Michael) mentioned earlier, are there other people who are looking at similar things? If you look around, there are. There are evolutionary biologists looking at behavior. And much of what they are saying concerns alternative contingencies and concurrent schedules. There are very close commonalities, and a conference, including these people, with some behaviorologists, immediately gives some legitimacy: you begin talking, and the publications then reach a different discipline from psychology. Sponsoring small but highly prestigious conferences can and does have an impact, on deans as well as those involved and beyond. It puts you in that class, with those individuals, rather than with the professional psychologists, which are the service delivery of the area. I think that is the pragmatic step. There is a paper in a journal by Tierney on the evolution of behavior. It is by a zoologist. She was right on target. She could have been a trained behavior analyst. She was right on target about selection of behavior and relation to Staddon's work. There was someone and an area that she obviously is writing to, and responding to, that could be a current repertoire. That, I guess, is the basic point. You need to find current repertoires that overlap. That is something we would do. We could sponsor something like that.

SG—That would be great. The Behaviorological Annual Meeting, and then be sure that there were some biologists there and anthropologists or whatever.

JL—I would have a meeting to discuss the issue so that people from that particular discipline or area would want to pay attention to it and look at it, and not make it a behaviorological meeting but invite behaviorologists and be the organizers.

DG—In fact you're better off not saying this is a meeting of American Behaviorology; this is a meeting of science concerned with a particular issue. Invite Stephen Gould...

JM—It's fairly important that there be some people within our field that are contributing in that area.

EV—I like Jack's practical suggestion here. What we've been wrestling around with, with the slight differences of

how we could be more effective in promoting the science, is essentially what this discussion boils down to. Jack (Michael) suggested, for example, that we use a name. Julie's notion about using a handbook would be a good one. I think we should settle the issue of what is a name we should call our group. That is an immediate practical suggestion. Otherwise we've had nothing but the talk. We've talked about using the word behaviorology or behaviorologist for the group. So we've heard association of behaviorology. Any other names suggested?

SL— I would simply reverse them.

EV—Behaviorology Association?

SG—I think Society sounds good.

(At this point some discussion occurred, though not with excessive concern, on the problems of the initials of some organizational names: SOB or BS [though "in name only..."].)

EV—Jack, you don't like "International." I like it myself.

SL—You come to be known by the acronym, and "IBA" is much easier to say than just "BA."

DG—But everybody calls themselves "International."

JM—Scientific societies got to be called American, because there were already societies in other countries. When an organization wants to indicate it is not parochial, use the term international. But "international" for a small organization starting at scratch sounds a little bit pretentious. It seems to me that if the organization has a fairly clear goal, and the goal is not restricted to the USA by its characteristics, then anyone is invited. It would serve their goals too. The only reason anyone wants to make it international is so as not to scare out, but in fact encourage, people with similar problems in other countries.

SL—Without getting others to start their own organizations, say, called the European Behaviorological Society or something. If you leave it as International then they don't have to do that.

SG—Just call it Association of Behaviorologists.

JL—In terms of the BS problem, if you put the word "The" in front of it, I think you could get away with it. Call it *The Behaviorological Society*. It's smaller, and it doesn't mean big, it means important. Anyone can join.

LF—What is it in *Society* that is different than *Association*? Is there any connotation?

SL—The Australian equivalent of APA is the Australian Psychological Society. So I think the words get interchanged easily.

LF—I still tend to favor something of, some grouping of, behaviorologists, to emphasize that this is an organization for people who have this orientation, this commitment to do this in a certain way, as opposed to people who merely support that or have an interest in it.

SG—But I can't think of any scientific society that calls themselves "ists" as opposed to their field.

LF—The reason is, to be a chemist in the first place, you do pass muster with respect to basic science. You do things according to the rules of physics and mathematics and that is understood. In the behavioral business that is not understood.

SG—But shouldn't the focus be on the science rather than the people?

MS—I agree with Sigrid's point. I'd suggest "The Association of Behaviorology."

(At this point everyone stated the organizational name they preferred, and extensive discussions ensued, including both the problem of using "of," because then you use "ist" [while the overall preference was to retain the word behaviorology in the name] and the problem of using "for," because this implies advocacy as the main emphasis or role, which is not the sole intent of the group. Also, following the practices of other groups in naming themselves would be helpful but not compelling. We agreed that "The Behaviorology Society" would be an acceptable name at this point, with "association" perhaps becoming more appropriate later.)

EV—Two other things we should decide are officers and goals. For officers I'm thinking of people who will contact us, make arrangements for us to meet again, set up communication means, begin to make explicit the concerns we have, and so forth. I'd like to start off by suggesting Julie Vargas as the chair. We should also consider what other officers to have, how long they would serve, who else would we want to invite to join us, when we would meet again, and what should be the means by which we grow. Some of these can wait for a later meeting. I suggest we grow slowly, so we can iron out our difficulties as we go along.

SL—I would like to suggest that it might be appropriate to keep as the first set of officers the people who have been most active in getting things going at this point, which means essentially centered at West Virginia University (as ABA is essentially centered at Western Michigan).

JM—As it probably will be quite small to start with, it might be reasonable to consider a set of leaders who are not ordinarily thought of as president, secretary, treasurer, and so forth. But to simply have a Chairperson and an Executive Committee. We elect the executive committee and we let the executive committee elect the chairperson so if Ernie, Larry, and Julie are the executive committee then they can persuade Julie to function as spokesperson in the sense of being one person. But the way they assign the duties to each other would be left up to them.

EV—I would like to amend that if I may. I would like the Executive Committee to be this committee. I would feel more comfortable operating under control of everyone's contingencies here. We could just form an executive committee of the whole.

JM—That doesn't help us as far as having an administrative group, however. It has to work with a smaller group.

SL—Is there another name, Jack, for a committee this size, as opposed to an executive committee, which would be three people that would do that administrative work?

DG—A board and the executive committee. The other thing is you may feel that while there are lots of good logistical and tactical reasons to have the three of you at the same place, there are also political reasons in terms of people saying, "Well gee, that's just the same group." You may need somebody else.

EV—Let's say the executive board with Julie being chair. Let's do this functionally; as things need to be done, subgroups will be formed in order to do them. Calls can be made; subsets of people organized to take care of this or that. We always prefer two or more people dealing with a particular task, even if it were a task of simply the name or where we're going to meet next year, to spread out the contingency control more. I hate to just start having it devolve on any one party or small subset of parties.

SG—The executive committee doesn't have to be publicized. Only we need to know the committee, and the board gives you that type of diversity. That way it could function tightly, because you all are right there and could talk to each other. At least for the short run.

EV—It would be useful to have an executive committee that was really spread out. To me that would be a good executive committee, because these people have links with all sorts of other folks in their immediate vicinity.

SL—Well, that's how we are thinking of the board. Jack (Michael) is trying to forward the idea of an executive committee as simply doing the administrative work.

JV—I would hate to see the thing look like just a little West Virginia thing.

SL—That's the importance of not publicizing the "executive committee." That word is just for us.

LF—I guess we are wondering if it's necessary to even say it.

JV—Couldn't it be a task force? We could be a task force. But couldn't we call the whole thing the executive committee or the executive board.

(At this point side two of the tape ran out. Some minutes passed before this circumstance evoked starting the side-three cassette. We decided that the members present constitute an executive board or council, and that Larry Fraley and Ernie and Julie Vargas would serve as this board's task force with Julie Vargas as chairperson.)

JM—There are not many people who we would describe as behaviorologists who have spent their lifetime working on the topics of intelligence or social attitudes. The point is that none of us have done that, but that doesn't mean that that has nothing to do with behavior. It's sort of historical growth, preferences, and so forth. People teach other people, and their interests are passed on. Most of our work has been in the area of the application of contingencies and particularly consequences. That does not mean other variables that affect behavior are not behavioral.

JL—I think that is a very good point to make. Particularly it is one of the points that ABA didn't make earlier on that was very clear. I think it is one of the key points that is necessary for behaviorology to make, that it is not exclusive of other groups.

JV—Joe, is there any possibility of Chicago being the site of a conference where you could invite people from these different fields?

JL—At the university itself? That might be possible. They have facilities there.

JV—Because if we pursue the allying and the bringing in of people who have similar concerns, it seems to me a conference would be a good way to go.

JM—I still think that the main issue is not dealt with adequately: how we state our goals other than promoting the term behaviorology. That goal is uncontroversial. Promoting a separate discipline is not as simple. That sounds OK, but you would find “separate discipline from psychology” is... well maybe that’s also fairly uncontroversial, so long as it doesn’t mean that people can’t also be psychologists. To what extent would ABA be doing the same thing? In many respects some of the goals of ABA—although I don’t know if they stated that (I think some people would consider it to be, by implication)—[are] separation from psychology. After all, why aren’t we in the APA?

SG—But [Nate] Azrin said [in the 1970s], as the first ABA president, that this may be the beginning of a separate discipline.

JM—Yes, so in that sense there is some feeling among people in ABA that, if we promote a separate discipline, they might think that we are giving ourselves credit for the only ones thinking of this in that kind of sense. So if we could include in our statement of it some way that offsets that difficulty, say “To more effectively promote”...

SG—Make that a primary goal.

JV—I think that we are tied together by the radical behavioral philosophy, too.

JL—I think there’s another distinction that’s important. ABA is there to advocate for all of behavior analysis, the practitioner, school teacher, everyone.

SL—Especially within psychology.

JL—What this is looking at is specifically trying to focus on the promotion of the basic science.

JM—That’s a good point except that it strikes me as the fact that no one in this group is primarily involved in what we call the basic science.

EV—We shouldn’t confuse the laboratory work with basic science. You could be one of the greatest basic scientists and may never step inside a lab in your life.

JM—I think what many people would say is the basic scientist is the guy that is not interested in applied topics. Or at least spends little of his time on applied topics.

DG—I think that the overall issue is epistemology. People are concerned with what people call radical behaviorism or what you call thoroughgoing behaviorism.

SL—I would have to stress the philosophy. As Jack (Michael) says, few in here are really into the so called basic science, experimental science. But we are all into the philosophy.

LF—It seems to me that large numbers of people in ABA have always considered themselves psychologists. They consider themselves behavioral psychologists. It is the organization of psychologists who happen to be behavioral.

DG—Most of the members of ABA are not psychologists.

JM—Until recently though, Larry, anybody who was behaviorally oriented and had a background in psychology had no alternative but to consider themselves as behavioral psychologists. I don’t think it occurs readily to people who are originally in psychology, and who work in psychology departments, to think of themselves as something else. So when people ask “What are you?,” [you say,] “Well, I’ve got my Ph.D. in psychology and I’m a behavioral psychologist if you want to know the type. I’m a behaviorist as far as philosophy goes.” Maybe we will increase the opportunity for such a person to say “Well, I’m not sure I want to be called a psychologist anymore if there’s something else I can be called.” Until recently your only option, if you didn’t want to call yourself a behavioral psychologist, was to call yourself a nonbehavioral psychologist. If there is an option, then maybe that will happen. I still worry a little bit about all the people who primarily see the science of psychology, or the science of behavioral psychology, being the kind of stuff that’s done in JEAB or in basic research, not like what’s done in JABA. Now, theoretical stuff that appears in *Behaviorism* or in *The Behavior Analyst* or in *The Analysis of Verbal Behavior* would qualify as basic science. It is significant that I don’t think our stronger supporters are going to come from the JEAB group particularly.

SG—[If] The Behaviorology Society supports what they’re doing and helps them get money, I bet they’ll be perfectly happy with The Behaviorology Society.

EV—It depends on whether some of those folks would be interested in joining us. Like Murray (Sidman); there’s obviously a first class lab person. Before we finish, we should address the issue of goals.

JM—I was going to suggest that maybe one of the first things that Julie do as chairman is try to draft something

in writing. It could be mailed to us. There's a small enough group of us that we could get on the phone if necessary, and a revised document could be based on the circulated document and then that one sent out. It shouldn't be difficult that six months from now we should have a statement that almost everyone agrees with. There may be other expenses. If there are, let us all know.

LF—Just assess everybody.

JM—Everybody here as a group is agreeing to being assessed?

Many voices—Yes!

(The meeting concluded on that note, and the rest—"as they say"—is history. Within a year the name became *The International Behaviorology Association* [TIBA]. This organization held the first behaviorology convention in August 1988 in Potsdam, NY. Lawrence Fraley and Stephen Ledoux [2002] reported several years of behaviorology's and TIBA's developing history in a multi-chapter paper that first appeared in 1997, and Ledoux [2012a & 2012b] reported more recent considerations. Many articles and several books have been building the

behaviorology disciplinary literature before, between, and after these references [e.g., see the bibliography in Ledoux, in press].)✻

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See announcement on page 21 about

**The TIBA 27th Behaviorology
Anniversary Convention**

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Journal of Behaviorology (previously known as *Behaviorology Today*) is the peer-reviewed Journal of TIBI (*The International Behaviorology Institute*) and is published in the spring and fall of each year.

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Considerations

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August 1988 Public Radio Interview of the Organizers of the First Behaviorology Convention

Introduction

Just before the first behaviorology convention, which *The International Behaviorology Association* (TIBA) organized at Clarkson University in Potsdam, NY, on 9–11 August 1988, Pat McKeown, a senior reporter for the local public radio station (WSLU North Country Public Radio 89.5 FM in Canton NY) suggested that she interview the convention organizers for a special edition of her Evening Report. The organizers agreed, and she spent over 90 minutes interviewing them as a group. These four behaviorologists, plus Ms. McKeown, participated in the interview:

- ✻ Lawrence Fraley (**LF**—West Virginia University in Morgantown)
- ✻ Stephen Ledoux (**SL**—State University of New York in Canton)
- ✻ Pat McKeown (**PM**—WSLU North Country Public Radio in Canton NY)
- ✻ Ernest Vargas (**EV**—West Virginia University in Morgantown) and
- ✻ Julie Vargas (**JV**—West Virginia University in Morgantown).

As the interview proceeded, Ms. McKeown asked many very astute questions that prompted not just answers but much meaningful discussion among the interviewees. After the program aired, Stephen Ledoux (who is authoring these introductory comments) obtained a copy of the program. Immediately noticeable was the short duration of the program, under 30 minutes, compared to the length of the interview. Sadly, investigation showed that the missing material was indeed lost; the tape technology of the time left all removed material literally, and irretrievably, on the cutting room floor. This transcript relates the program as it aired.

The transcriber made every effort to render as faithful a program transcription as possible, with minor edits [which appear in brackets] increasing the current accuracy. In the transcript, the speakers' initials, in **bold**, identify each speaker. You can listen to a CD copy of the broadcast; see the ad at the end of the transcript.

The Broadcast Interview

PM—This is Pat McKeown. If my cows wandered close to the edge of their grazing field and then they get a jolt from an electric fence, chances are they're not going to go close to that fence again. Where if my children are grounded when they ride the roads pass curfew, most likely they'll be in on time next time, at least I would hope so. In both of these cases, behavior has been changed not by the genetic makeup of either cattle or boys, but by certain environmental controls imposed from without on them. This is the area of a group of social [natural] scientists known as behaviorists [behaviorologists]. There are famous names in this group including Pavlov and his now famous canine drooling experiments, and more recently Dr B. F. Skinner, whose work in the Skinner box with his own children has been somewhat distorted, as we will soon see. In a move away from mainstream behaviorism though, a small group of these scientists recently formed their own group, calling themselves radical behaviorists, or just a bunch of behavioral scientists concerned with the very basics of that science, not—they say—as a way to having any social or political mission, but as a way to maintain the integrity of the [behaviorology] discipline. The group's first meeting was in Potsdam [NY] at Clarkson University and, just before their session began, I asked several to talk with me about their work and their plans for the new organization, since I knew nothing about either. Chairing the group is Julie Skinner–Vargas, daughter of the behavioral pioneer B. F. Skinner, and a faculty member at West Virginia University. Two others are also on the West Virginia staff: Ernest Vargas, Julie's husband, and Lawrence Fraley. The fourth is the secretary of the group and the local coordinator, Stephen Ledoux of [SUNY] Canton ... Ernest Vargas started off the discussion by answering my plea to differentiate between radical behaviorists, and just the ordinary run of the mill type. The basic difference, says Dr. Vargas, is epistemological.

EV—The term is a philosophical term which refers to the issue of how it is that something is the case, how do we know that something is true or not true. There [are] a number of canons of evidence that scientists use.

One of them, for example, is... subject, inter-subject, agreement, that is, that two or more observers should have... observed the event and counted it and reported it essentially in the same fashion.

PM—Much like journalists when they're covering an accident or a trial or something like that.

EV—That's right, exactly. I think by and large probably those canons of evidence are relevant in every field where people want to be accurate and where they want to be fairly secure in that what they're saying is the case. I'm sure, in journalism, when it's a question of lawsuits, you have more than one source of evidence for a controversial point that your going to print.

PM—And more than a passing interest, I might point out.

EV—*Laughing*: You're right. In any case, when Watson laid down his behavioral revolution in [1913] he adopted by and large the operating philosophy of the physical sciences and said what we deal with is behavior and not internal states or introspective states or anything of that sort, and unless one can see it, and other people can see it as well, then it's not acceptable. He also cast the entire analysis within what is called a stimulus-response framework, something that a number of current behaviorists are still confused [about]. The public still confuses current behaviorists with that early framework. Skinner took the step of, first of all, breaking the stimulus-response relation in saying that there are events that *follow* what an organism does that influence it's behavior, and not simply events that come beforehand. And secondly, on the epistemological point, he took the position that it's obvious that there are events that only one person ever observes, which are there, and that we can't exclude internal events, that we have to find other sources of evidence for them. But simply because a second party didn't observe them does not exclude them out of science. And the reason this is so important... , and he called this radical behaviorism. The term radical is not having its political overtones of extreme, but having its etymological history in the notion of root or basic, like radical in mathematics...

PM—You're not really then the left wing of the behavioral movement, but you are more concerned with the root, or the basic source, of behavior.

EV—That's right

PM—Can we move then from that point into the realm of children. Children have been studied by behaviorists, radical or otherwise, for a long time, to see what is in

fact learned, and what came along with that organism. If all individual behavior is learned, if the experiences are learned, and if you can control that learning situation into various forms of behavior, how does your discipline then explain genius in a family, the sibling that is brightest raised in the same environment where other siblings are found wanting? How do you explain the whole creative flow of an individual? Dr. Fraley, you would like to jump on that I see.

LF—First of all we might appeal to a basic principle: there are no genes for behavior, there are only genes for the structure of your body. So first of all you don't get any behavior genetically, you just get a body that can behave. Whether the behavior that's emitted is stimulated and follows automatically, gives us one division of behavior; we call that the respondent or automatic behavior. Whether the environment presents a situation that evokes variable kinds of behavior that we can't really predict for sure, gives us another major class of responses. But with a good body from good genes, one is in a better position to acquire, effectively and efficiently, a very effective repertoire of behavior. So a lot of the people that we recognize as geniuses very early on are people prepared genetically to profit enormously from their experiences.

PM—Like a Mozart.

LF—Probably like a Mozart, yes. There is no gene for playing pianos, but there are genes that gives you a body that lets you respond very effectively and efficiently to stimuli which shape that up.

JV—I'd like to add one thing and that is, two children might be raised in the same environment. That's using the word environment in a slightly different way than we do. We are really interested in the moment to moment interactions between very small body movements, or actions, and the way the environment responds to those. And I'll give you an example—supposing you have two twins, and they're lying in a playpen, say. All of a sudden one twin just kicks out for no particular reason, and hits the other twin. The other twin, in pain, cries. Well, the environment, right there for those two babies, is extremely different. For one baby it's an environment in which, when you move, exciting things happen. For the other it's an environment in which, when you're lying there minding your own business, awful things happen to you. Now, if you look at that kind of moment to moment interaction, you can see that if just by happenstance a certain pattern existed so that, for example, if a Mozart at some early musical thing—he goes and plunks on a piano and that gets attention from his parents and that increases that probability and so forth and so on, combined with a

good body—you can see that you might have something developing which then gets stronger and stronger and is then more successful in its environment and comes out as what we call a creative talent or something of that sort. I also don't think it's any accident that Mozart came from a musical family. Had there not been any pianos in his environment he might have been a very different person.

PM—We don't often see the—what you're saying is, we don't often see the—ghetto savior arising out of nothing, surrounded by nobody. Dr. Ledoux, I see you would like to comment; sure.

SL—The point you just made: We don't often see all the relevant history that leads to the development of behaviors later. If a child plays the piano very well, you see it when he's five years old playing Beethoven. You don't see the three years that went before that, where he got great encouragement and a lot of fun at the piano with parents, with other people, with little groups that happened to be in the house that he played for and everybody clapped. We don't see all those parts. And because he got that same amount of history, those three years, between the ages of two and five, we're amazed. Whereas another kid might come along, do the same amount of work in two years, between ten and twelve, and it's not such a big deal. And yet it's the very same processes at work. Something that might also help clarify: When Larry speaks of our—we get—from our genes we get a body that can behave, such bodies, we must consider that, they include a pre-wiring to be reinforced, or have behavior strengthened by, certain stimulus complexes.

PM—What do you mean by that, a pre-wiring?

SL—OK, the genetic structure itself, the structure of the body that the genes are responsible for, that is...

PM—You mean like a basketball player is predisposed physically to playing basketball?

SL—In the sense that if a basketball player is put with a basketball, and you give him, and you teach him how, in front of a net, and his previous history has been responsible for adequate coordination development, yes. But the basketball [player] might just as well be someone who can plaster ceilings without a ladder, depending on his history.

JV—Should I add one little thing? I would agree with what exactly Stephen said, and that is I do think that it is likely that people are born being more susceptible to certain reinforcements than others. I think musicians for example find [that they] really like the sound of the piano

or the violin more than other people. Now whether that's inborn, or whether that happens to be something in their early history, we don't know. We just don't know. But our science would allow it to be genetically pre-programmed in a sense that you're just [or] I'm just born liking the sound of music; he's just born so that red really turns him on, and that sort of thing. It doesn't disallow that.

PM— [While multiple voices start comments:] It's like a genetic blueprint, for future determination.

SL— [During multiple voices:] Well, let me give an... Allow me to give an example ...

PM—I wish I had brought more mikes.

SL—Let me give an example. People often think of birds, and I pick another species, because it's important to realize that we are not studying only human behavior, although that is our main concern at this point. But, for instance, people often look at birds and say gee birds have a nest-building instinct. Why do they build nests? Because they have a nest building instinct. How do you know they have a nest building instinct? Because they build nests. There is a certain circularity there, which is a problem. What we would prefer to say is that birds are pre-wired, in other words, their genetic structure is such that they are susceptible to having their actions of nest building reinforced by stimulus complexes such as those tightly intertwined twigs and weeds, which would not affect us at all. We could care less whether the weeds were intertwined. Doing the actions of building that nest is reinforced by that complex, and what that means is, the bird makes those actions more, and ends up building a nest. In a sense we would also look at the evolutionary history. Birds that didn't build, or (no). Birds that were not adequately reinforced by the tightness of the sticks and weeds in their nests, built sloppy nests, and their eggs fell out, and that genetic pre-disposition did not get passed on. Those birds died out.

PM—Interesting. The subject is radical behaviorism. I'm speaking with four experts in Potsdam for a conference. They are Dr. Earnest Vargas, Dr. Julie Skinner-Vargas, Dr. Lawrence Fraley, and Dr. Stephen Ledoux. Moving back to children, one of the wonderful things about behaviorism is that it has always been touted as, or least has the reputation of being one of those sciences that can teach children how to behave properly. If you apply the proper stimulation, and then you do the proper things, then your children will come out in a certain way, all things being equal of course. We just had a discussion a moment ago about children and about learned responses and about the environment and about the genetic

makeup of those children. Let me give you a personal example, I've raised three boys. They are now all 18 to 21. They were all a certain way at birth; one was chatty and short-tempered, another was pensive and introspective, the third was kind of the leveler of all three. I tried over the years to change each one, to apply certain stimuli to the quiet one to make him more aggressive, to apply certain controls on the noisy one to make him less volatile, to help the neutral one to be a little more of either. And through their years, their growing up years, it worked fairly well, as far as I could see on their report cards, their associations with their friends. Now, as men, they are exactly the same they were when they were born. The noisy one is noisy, the quiet one is quiet and pensive, and the one who bridges both of those personality types still does do the bridging. So what did I accomplish? I am at a loss, and I don't think I'm alone.

SL—I believe you had a much more enjoyable childhood with them than if you hadn't tried doing what you did.

PM—But you know what I'm talking about; this is a very small example but there are people who spend lifetimes trying to change what I would call the birth order or what existed at birth, making something out of nothing, a silk purse out of a sow's ear my grandmother used to say. Dr. Ledoux?

SL—I would just continue the line that I just mentioned. There are many variables that are beyond our reach sometimes. If you had not done what you had done, it's very difficult to say what difference it would have made. They may have each evolved towards what you wanted anyway. More than likely, given some data that has appeared in the literature, they would have gotten more like they were originally, gotten worse in your view. And there may simply be a change in environments as they grew up, which has brought them back to how you described them as they were originally. I don't think you should underestimate the effectiveness of your intervention though...

PM—Oh, I'm not saying I failed or succeeded. I'm just saying it was curious, to me, to see nothing happening between birth and adulthood except time, in a way.

EV—It's hard to see what did happen, and it's hard to see in the absence of the alternative, if you had not done anything, what differences there would, may, or may not have been. That's always the problem, the classical problem that any scientist runs in to. That's why, for example, if you do a controlled study, you not only use the two subjects, but you might put one subject in one situation and—two subjects of the same kind—put one

subject in a situation different than the other. Then see what the two differences produced in those situations. Here you only know the results of your efforts, and not the results of your non-efforts. So it's kind of hard to judge, what may or, to repeat, what may or may not have happened. Obviously there are differences in temperament when children are born. It's clear, we saw that, Julie and I, and now our two daughters, and I've no doubts that parents see it all the time in their children. But supposing for example in your boy I think who was your oldest one, who was more exuberant and assertive and so forth, supposing that he would have had a history of very deep punishment. Then you might have found an individual who, because of his restlessness and high energy level, might have been a brawler, an angry assaulter of people, and so forth. As against, oh, then take again the same person's temperament, and he got a lot of reinforcement, a lot of positive happenings in his life, then he become a very happy, energetic sports player. That sort of thing. So, you can take that sort of thing...

PM—Yes, I can see what you mean. In fact, isn't that in a remote way, how, Dr. [Julie] Vargas, your father started, that kind of examination of children way back? I believe that was how his reputation was built, on experiments involving children's behaviors. Ah, no? Is that not true?

JV—No. Dr. Skinner's work was originally with rats, and then he worked with pigeons a great deal, and in fact he did not work with children at all until the early, well, right around 1960 when he started, visited with my younger sister's school on parents day, and saw a class, a typical mathematics class, in which the teacher put some examples on the board, and then gave the kids all something to do. And my father was just absolutely appalled, because he saw that some of the kids couldn't do the problems that were on the sheet, others just tossed through two or three and clearly were bored, there were only about one or two, in a class of, I don't know, seventeen or so, for which the exercise was really at the right level. And he said he immediately thought, well if I were teaching a pigeon to do something, you don't do it that way. You have them behaving, you give them consequences. And that's when he went into designing programmed instruction. And that was the time that he really dealt with people. I think that he really didn't use as many of the principles consciously at home as one might think, and in a way I'm sorry that he didn't use a few more, because he might have shaped a few better behaviors in me. But he always was very positive, very reinforcing of anything we wanted to do, and I do think he shaped up independence, and that kind of thing, in both my sister and me.

PM—May I ask you about the glass crib, or the air box, or the famous experiment, which involved your younger sister, I believe?

JV—Alright, so, it was not an experiment at all. What happened was that I evidently kept pulling sheets over my head, and wetting my bed, and so forth, and one day my mother in exasperation said to my father, “Fred, can’t you design a better way?” And my father said, “Well, I think I can.” And so he went down into the basement and tinkered around—bang, bang, bang, bang, bang. I remember his tinkering very well, because I was helping him, and I picked up the soldering iron by the hot end. One of my early experiences, but anyway, so he came out with a box that you could use as a bed, which didn’t have any sheets. It just had a surface the baby would lie on. And it was heated so that the baby wouldn’t get cold. And it was used as a bed, no more, no less. The baby was not kept in there; my sister had a playpen like every other baby, and the bed was used just as a bed.

PM—Well, why is it that he has that reputation of experimenting with family members? Where did that all begin if it was only to help your mother out?

JV—Really, that’s all it was. I think the problem was that he called it the baby box; meanwhile he had invented an experimental apparatus called, by everyone else, the Skinner box. He called it “the experimental chamber,” or operant chamber. But that’s just too complicated, so everybody called it the Skinner box. And people confused one with the other. They confused it so much that, in fact, a friend of mine showed me a Spanish textbook that had a picture of me with a little demonstration box with a pigeon, which was about, I guess, 14 inches by about a foot by a foot, and it said “This is Dr. Skinner’s daughter along with the box in which she raised her children.”

SL—[Amid laughter:] A little absurd.

JV—My youngest daughter weighed eight pounds something when she was—and older daughter weighed eight pounds something when she was—born; she wouldn’t have fit into the box.

PM—And everybody is well and happy and healthy? Nobody is cramped and your younger sister is alive and well? She’s not...?

JV—Yes, she’s fine. There are all kinds of rumors that she is supposed to have committed suicide and, somebody told that to Harry Levin who’s an English professor, and he said, “Oh, when did that happen? I had lunch with her yesterday.” She’s also supposed to have gone crazy;

the only thing that I can think that might have happened with that was she worked one summer, as a summer job, she worked in an institution; for the, I think it was the retarded. And so maybe that’s where that rumor came from. And she’s supposed to be suing my father. I told her that and she said, “Oh, that’s not a bad idea.” But she’s not, no.

PM—And she show’s no predilection for containers or boxes?

JV—She does color etchings.

EV—She does fine tchings; you know, there is something box-like about those.

PM—Let me ask another question

JV—What amazes me is that people will have an antique crib, a rocking crib, as a bed for a baby, and they don’t think that’s going to affect this entire person’s personality, because they had a different kind of a bed. But if you put them in something in Plexiglas, then they think that something is going to be very very different about this child. The only thing that is different is that when we had our children—and we of course used the, what we call, air cribs—...when we went to visit my parents, we would rent a regular crib from Holiday Inn or something like that, so they would have a bed to sleep in, and it was really awful when you are used to the baby having a clear view, to put them behind bars. And you were worried that they’re going to get their feet caught or they’re going to get strangled over the bars and the tops... So, really, when you are used to the air crib, the crib looks like a prison.

PM—Dr. Julie Skinner-Vargas, thanks very much for shedding some light on an apparently widely held misconception about the work of your father, Dr. B. F. Skinner. Again, thanks very much Dr. [Julie] Vargas. Dr. Ernest Vargas, thank you. Dr. Larry Fraley, and Dr. Stephen Ledoux, thank you all for appearing with me today, trying to explain to our listeners about radical behaviorism. Dr. Ledoux is local coordinator of the first ever international meeting of... [behaviorologists]. The organizers want the fledgling group to remain small [for the moment]... It’s an organization of kindred spirits... one that will discuss their professional issues and examine each other’s work. This is Pat McKeown. [Musical interlude.] This has been a special edition of the Evening Report...

(On that note this program concluded, a program comprised of parts of an interview that Ms. McKeown arranged before the first behaviorology convention. For

subsequent developments see Fraley & Ledoux, 2002, which reports several years of behaviorology's and TIBA's developing history in a multi-chapter paper that first appeared in 1997. Also see Ledoux, 2012a & 2012b, which report more recent considerations. Many articles and several books have been building the behaviorology disciplinary literature before, between, and after these references [e.g., see the bibliography in Ledoux, in press].)✱

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* (2013) *Journal of Behaviorology*, 16 (1), 15–20.

***[Space for]
Letters to the Editor***

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**The TIBI 27th Behaviorology
Anniversary Convention**

*Is tentatively scheduled for 21–23 May 2014
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**Send proposals for paper
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Dr. Stephen Ledoux (TIBI 27th Convention Coordinator)
SUNY–Canton
34 Cornell Drive
Canton NY 13617 USA (Email: ledoux@canton.edu)

(Submission requirements will arrive by a separate mailing or email.)

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The most recent issue of *Journal of Behaviorology* that features a syllabus directory contains these two lists of current syllabi. These lists show where to find the most up-to-date versions (in title and content) of TIBI's current course syllabi. The first list organizes the syllabi by the chronological volume and number where you can find each one (with volumes 5 through 15 under the name *Behaviorology Today*). The second list organizes the syllabi by numerical course number.

Current Syllabi by Volume & Number

- Volume 7, Number 2 (Fall 2004): BEHG 101:
*Introduction to Behaviorology I.**
- Volume 7, Number 2 (Fall 2004): BEHG 102:
*Introduction to Behaviorology II.**
- Volume 7, Number 2 (Fall 2004): BEHG 201:
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- Volume 7, Number 2 (Fall 2004): BEHG 355:
*Verbal Behavior I.**
- Volume 8, Number 1 (Spring 2005): BEHG 400:
Behaviorological Rehabilitation.
- Volume 8, Number 1 (Spring 2005): BEHG 415:
*Basic Autism Intervention Methods.**
- Volume 8, Number 1 (Spring 2005): BEHG 420:
*Performance Management and Preventing Workplace Violence.**
- Volume 8, Number 1 (Spring 2005): BEHG 425:
*Non-Coercive Classroom Management and Preventing School Violence.**
- Volume 8, Number 1 (Spring 2005): BEHG 475:
*Verbal Behavior II.**
- Volume 8, Number 2 (Fall 2005): BEHG 410:
Behaviorological Thanatology and Dignified Dying.
- Volume 9, Number 1 (Spring 2006): BEHG 365:
Advanced Behaviorology I.
- Volume 9, Number 2 (Fall 2006): BEHG 470:
Advanced Behaviorology II.
- Volume 10, Number 1 (Spring 2007): BEHG 120:
Non-Coercive Companion Animal Behavior Training.

Current Syllabi by Course Number

- BEHG 101: *Introduction to Behaviorology I:*
Volume 7, Number 2 (Fall 2004).*
- BEHG 102: *Introduction to Behaviorology II:*
Volume 7, Number 2 (Fall 2004).*
- BEHG 120: *Non-Coercive Companion Animal Behavior Training:*
Volume 10, Number 1 (Spring 2007).
- BEHG 201: *Non-Coercive Child Rearing Principles and Practices:*
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- BEHG 400: *Behaviorological Rehabilitation:*
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- BEHG 410: *Behaviorological Thanatology and Dignified Dying:*
Volume 8, Number 2 (Fall 2005).
- BEHG 415: *Basic Autism Intervention Methods:*
Volume 8, Number 1 (Spring 2005).*
- BEHG 420: *Performance Management and Preventing Workplace Violence:*
Volume 8, Number 1 (Spring 2005).*
- BEHG 425: *Non-Coercive Classroom Management and Preventing School Violence:*
Volume 8, Number 1 (Spring 2005).*
- BEHG 470: *Advanced Behaviorology II:*
Volume 9, Number 2 (Fall 2006).
- BEHG 475: *Verbal Behavior II:*
Volume 8, Number 1 (Spring 2005).* ↻

*An older version appeared in an earlier issue.

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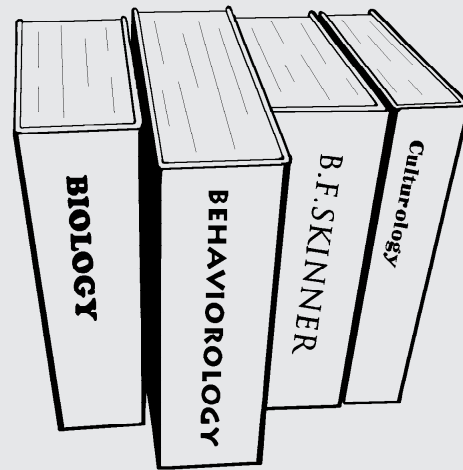
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TIBI, as a non-profit educational corporation, is dedicated to many concerns. TIBI is dedicated to expanding and disseminating the behaviorological literature at least through the fully peer-reviewed *Journal of Behaviorology* (previously called *Behaviorology Today*) and the behaviorology.org web site; TIBI is also dedicated to teaching behaviorology, especially to those who do not have university behaviorology departments or programs available to them; TIBI is also a professional organization dedicated to organizing behaviorological scientists and practitioners into an association (*The International Behaviorology Institute Association—TIBIA*) so that they can engage in a range of coordinated activities that carry out their shared purposes. These activities include (a) holding conventions and conferences and so on; (b) enabling TIBI faculty to arrange or provide training for behaviorology students; and (c) providing TIBI certificates to students who successfully complete specified behaviorology curriculum requirements. And TIBI is a professional organization also dedicated to representing and developing the philosophical, conceptual, analytical, experimental, and technological components of the separate, independent discipline of behaviorology, the comprehensive natural-science discipline of the functional relations between behavior and independent variables including determinants from the environment, both socio-cultural and physical, as well as determinants from the biological history of the species. Therefore, recognizing that behaviorology's principles and contributions are generally relevant to all cultures and species, the purposes of TIBI are:

- A. to foster the development of the philosophy of science known as radical behaviorism;
- B. to nurture experimental and applied research analyzing the effects of physical, biological, behavioral, and cultural variables on the behavior of organisms, with selection by consequences being an important causal mode relating these variables at the different levels of organization in the life sciences;
- C. to extend technological application of behaviorological research results to areas of human concern;
- D. to interpret, consistent with scientific foundations, complex behavioral relations;
- E. to support methodologies relevant to the scientific analysis, interpretation, and change of both behavior and its relations with other events;
- F. to sustain scientific study in diverse specialized areas of behaviorological phenomena;
- G. to integrate the concepts, data, and technologies of the discipline's various sub-fields;
- H. to develop a verbal community of behaviorologists;
- I. to assist programs and departments of behaviorology to teach the philosophical foundations, scientific analyses and methodologies, and technological extensions of the discipline;
- J. to promote a scientific "Behavior Literacy" graduation requirement of appropriate content and depth at all levels of educational institutions from kindergarten through university;
- K. to encourage the full use of behaviorology as an essential scientific foundation for behavior related work within all fields of human affairs;
- L. to cooperate on mutually important concerns with other humanistic and scientific disciplines and technological fields where their members pursue interests overlapping those of behaviorologists; and
- M. to communicate to the general public the importance of the behaviorological perspective for the development, well-being, and survival of humankind. ☺

*This statement of the TIBI / TIBIA purposes has been adapted from the TIBI by-laws.—Ed.

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BEHAVIOROLOGY IS AN INDEPENDENTLY ORGANIZED DISCIPLINE FEATURING THE NATURAL SCIENCE OF BEHAVIOR. BEHAVIOROLOGISTS STUDY THE FUNCTIONAL RELATIONS BETWEEN BEHAVIOR AND ITS INDEPENDENT VARIABLES IN THE BEHAVIOR-DETERMINING ENVIRONMENT. BEHAVIOROLOGICAL ACCOUNTS ARE BASED ON THE BEHAVIORAL CAPACITY OF THE SPECIES, THE PERSONAL HISTORY OF THE BEHAVING ORGANISM, AND THE CURRENT PHYSICAL AND SOCIAL ENVIRONMENT IN WHICH BEHAVIOR OCCURS. BEHAVIOROLOGISTS DISCOVER THE NATURAL LAWS GOVERNING BEHAVIOR. THEY THEN DEVELOP BENEFICIAL BEHAVIOROLOGICAL-ENGINEERING TECHNOLOGIES APPLICABLE TO BEHAVIOR-RELATED CONCERNS IN ALL FIELDS INCLUDING CHILD REARING, EDUCATION, EMPLOYMENT, ENTERTAINMENT, GOVERNMENT, LAW, MARKETING, MEDICINE, AND SELF-MANAGEMENT.

BEHAVIOROLOGY FEATURES STRICTLY NATURAL ACCOUNTS FOR BEHAVIORAL EVENTS. IN THIS WAY BEHAVIOROLOGY DIFFERS FROM DISCIPLINES THAT ENTERTAIN FUNDAMENTALLY SUPERSTITIOUS ASSUMPTIONS ABOUT HUMANS AND THEIR BEHAVIOR. BEHAVIOROLOGY EXCLUDES THE MYSTICAL NOTION OF A RATHER SPONTANEOUS ORIGINATION OF BEHAVIOR BY THE WILLFUL ACTION OF ETHEREAL, BODY-DWELLING AGENTS CONNOTED BY SUCH TERMS AS *mind*, *psyche*, *self*, *muse*, OR EVEN PRONOUNS LIKE *I*, *me*, AND *you*.

AS PART OF THE ORGANIZATIONAL STRUCTURE OF THE INDEPENDENT NATURAL SCIENCE OF BEHAVIOR, *The International Behaviorology Institute* (TIBI), A NON-PROFIT ORGANIZATION, EXISTS (A) TO ARRANGE PROFESSIONAL ACTIVITIES FOR BEHAVIOROLOGISTS AND SUPPORTIVE OTHERS, AND (B) TO FOCUS BEHAVIOROLOGICAL PHILOSOPHY AND SCIENCE ON A BROAD RANGE OF CULTURAL CONCERNS. AND *Journal of Behaviorology* IS THE REFERRED JOURNAL OF THE INSTITUTE. JOURNAL AUTHORS WRITE ON THE FULL RANGE OF DISCIPLINARY TOPICS INCLUDING HISTORY, PHILOSOPHY, CONCEPTS, PRINCIPLES, AND EXPERIMENTAL AND APPLIED RESEARCH. JOIN US AND SUPPORT BRINGING THE BENEFITS OF BEHAVIOROLOGY TO HUMANITY. (CONTRIBUTIONS TO TIBI OR TIBIA—THE PROFESSIONAL ORGANIZATION ARM OF TIBI—ARE TAX DEDUCTIBLE.)☺

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