



TIBI News Time

The International Behaviorology Institute

Behaviorology

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Behaviourology

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TNT-8 News: Editorial

Good News! In the article, "Developing opportunities to disseminate the natural science of behavior" (Ledoux, 2001), in the last issue of this newsletter, I described seven behaviorology courses available through SUNY-Canton. I also pointed out that five of these had already completed

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the approval process, and that the remaining two were expected to do so before May 2001. As it turned out, both of these courses completed the approval process on 27 February 2001, just two days after that last issue, with that article, went to the printer.

On a related note, TIBI now has four regular courses available online at its web site (www.behaviorology.org). Three of these comprise TIBI's Behavior Literacy Certificate. These three are (a) BEHG 101: Introduction to Behaviorology I, (b) BEHG 102: Introduction to Behaviorology II, and (c) BEHG 201: The Behaviorology of Child Care Practices. The fourth course is BEHG 425: The Behaviorology of Non-Coercive Classroom Management and Preventing School Violence. All TIBI's courses are offered on

two, or even three, levels: If you only seek the personal benefits from learning the content of the courses, then you can take them for free. Simply follow the coursework instructions in the syllabus for each course. If you also seek credits toward a TIBI certificate, then you can enroll in them as a TIBI-tuition-paying student (and a TIBI faculty member will help you). If you seek regular academic credit, you can enroll in equivalent courses at a regular college or university. (The four courses mentioned here are among the behaviorology courses offered by SUNY-Canton. You can check them out by clicking on “Ledoux” in the faculty directory at www.canton.edu.) The syllabi for these and for all of TIBI’s online courses will be featured one at a time in future issues.

Unfortunately, I must also report some sad news. One of the four founding members of TIBI, who was also one of our faculty members and on our Board of Directors, Glenn Latham, has died. He had a massive heart attack in July while on his way to more of the professional activities that so characterized his life. We share this loss with his family, friends, and colleagues, both nationally and internationally. Throughout his professional life, Glenn labored to bring the benefits of the natural science of behavior to everyone everywhere. On the international front, this was especially evidenced by his trips to the Peoples Republic of China (e.g., see Latham, 2002). He not only supported the natural science of behavior organizationally (e.g., through his part organizing TIBI) but also academically, through his articles and audio/visual materials and books (e.g., *The Power of Positive Parenting* and *Keys to Classroom Management*, and their related A/V resources—see the Afterword in Ledoux, 2002, for an extensive list). Even while his contributions to scientific knowledge and practice endure, continuing to help more people daily, he will be missed. As reported in the minutes of the annual meeting, in this issue, the Board of Directors voted to confer “Member in Perpetuity” status on Glenn in honor of his continuing contributions.

In some significant news regarding future issues, the next issue (volume 5, number 1, Spring 2002) will show a change in the name of this periodical. From the very first issue (Spring 1998) this periodical has always featured minimally peer reviewed professional papers. Thus it has existed more as a magazine than as a simple newsletter. Under this circumstance members suggested that obtaining an ISSN (International Standard Serial Number) would be appropriate. In the process of doing so, we took the suggestion of the ISSN office of the Library of Congress to reconsider our title since our current title includes an acronym and, as the ISSN office pointed out, acronyms sometimes cause filing confusion for libraries. As a result the next issue will appear under the new title *Behaviorology Today* (with the assigned number ISSN 1536-6669). To maintain continuity, the volume and is-

sue numbers will continue without interruption. And to enhance access to materials previously printed, we will try to reprint many, if not most or all, of the past featured articles—and organizational documents (such as by-laws)—in the two issues of volume 5 which will, as mentioned, be the first volume under the new title. (The tables of contents of the first four volumes—eight issues—will be printed in volume 5, number 1, as well. This will enable identification and retrieval, from TIBI’s web site, of items not reprinted in volume 5.)

The issue you are reading, the last that will appear under the *TIBI News Time* title, carries an especially broad range of featured articles. In his article “Defining the behaviorology movement: Critical distinctions from 1990,” which was originally a letter to many of TIBA’s leaders, Lawrence Fraley helps us visit some of the disciplinary concerns affecting the direction of the behaviorology movement early in its organized history, for some of these concerns continue to affect our directions today. (While I agreed then, and agree now, with the contents of this letter, during the 1990–1991 academic year, I was teaching in China and preparing, as TIBA president, the foundation for many of our successes since then. As a result, I had not received this letter, so I was pleased when it was submitted for publication.) Next John Eshleman describes a relatively unexplored aspect of Charles Darwin’s work in his article “Charles Darwin, behaviorist.” Then David Feeney invites readers to visit, as his title says, “Two listservs as online magazines.” And in “A parable of past scribes and present possibilities,” I provide a parable on the twenty-year, billion-dollar American education research effort called “Project Follow Through,” the outcomes of which the American education establishment continues to ignore, to the detriment of students, teachers, schools, and communities across the country and even around the world.

The featured articles are followed by the minutes of the annual Board meeting and the usual newsletter contents. The latter includes information on TIBI’s web site and membership concerns, as well as how to subscribe without membership and how to obtain back issues.✿

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Defining the Behaviorology Movement: Critical Distinctions from 1990

Lawrence E. Fraley

West Virginia University

Introduction

The early years of the emerging behaviorology discipline were characterized by the halting and sometimes faltering extraction of behaviorology from the subcultural matrix in which its roots were deeply imbedded. As the decade of the 1990s opened, the definition of the behaviorology mission and the characteristics of the discipline—even its degree of organizational independence—were still in flux. The leaders of the movement struggled under a cloud of often conflicting ideas about how best to define both the movement and the essence of that which it was being organized to foster. It was a time in which strategic alternatives were much in debate. At issue were the kinds of actions that would insure the effective emergence and endurance of an independently organized natural science discipline of behavior–environment relations.

The Association for Behavior Analysis (ABA) had recently conducted a survey of its members. One item had instructed each ABA member to indicate a personal professional identity from a given list of choices. Among the disciplinary options was *behaviorology*. Most of the ABA members who had opted for the *behaviorology* label had had no previous formal affiliation or known contacts with the small emergent behaviorology movement and were apparently reacting only to the name. In 1990, the organized behaviorology movement was still encapsulated within a single small organizational entity under the name *The International Behaviorology Association* [TIBA]. Late in 1990 I obtained a list of the ABA members whose responses had implied that they preferred to be identified as behaviorologists. I was preparing a mailing to those individuals that would contain an announcement of the upcoming 1991 TIBA convention along with some factual information about the organized behaviorology movement, with which most of those people were unfamiliar.

This appeal to behavior analysts who preferred the name behaviorology provided an occasion for me to write a comprehensive analytical position statement to the other members of the small contingent that shared the leadership of the organized behaviorology movement.

That essay dealt with several fundamental issues that, at the time, were much in contention—so much so that they produced rents in the leadership of the behaviorology movement that mend only with the passage of years. Today, some of those contentious issues are well settled, and most are much more clearly resolved under the unremitting hammer of more than a decade of reality testing.

What follows is the text of that 1990 essay presented with some editing to assist the transition from what was originally a letter to what is now an article:

Contentious Issues in the Critical Year 1990

November 20, 1990

Dear [Fellow Leaders of the Behaviorology Movement],

Enclosed is the list of ABA members who specified *behaviorology* in response to the options offered in the ABA survey. Many were complete strangers to me. Some of the geographic clustering suggests that subsets of them share common sources of influence. I have spent the last two days working to get out a TIBA convention announcement and information sheet to 124 of those people whom we can assume have not yet been reached with behaviorology convention information.

Some recent conversations have underscored that I differ with one or more highly ranked TIBA members on aspects of the fundamental mission of TIBA and on the basic purposes of the behaviorology movement. This has led me to engage in a lot of critical reconsideration of the nature of our movement and what it should mean. Let me share some of this thinking with you.

While the point of this movement is to preserve, protect, and nurture the constructive evolution of our particular science and philosophy, the behaviorology *movement*, manifesting in TIBA, is a movement to organize, in a particular way, this science in relation to the ambient culture. The science and philosophy already existed *before* the behaviorology movement began. This movement is about how to *organize* it, how to *deal* with it, how to *focus and direct* its effects on the culture, ... that is, how to manage it (and coordinate the professional activities its advocates) for its greatest cultural impact.

Therefore, our movement is largely a political one, because those objectives fall in the class generally defined as political. I see our movement as one in the politics of science, and I think that that view is accurate. We entertain an important agenda of scientific objectives, but our movement is about the political, governmental, and organizational arrangements by which, ultimately, those objectives can best be realized.

We expect that, as a result of how we organize, manage, and operate this discipline, the science and philosophy that it features will not only prosper but will undergo constructive change. However, our movement is not focused narrowly just on that evolution of the science, but rather on the special organizational arrangements that are intended to better *support* and facilitate the progress of such change. Specifically, in addition to its special (perhaps novel) intrinsic constitutional features, we are organizing this discipline to be independent of all others. That is why, viewed in that context, I conclude that this movement is not adequately described merely as a *scientific* movement (although, construed thematically, that can be said), but rather as a political movement pursuant of certain long term objectives, namely (a) the attainment of a mature and well-evolved science, and (b) a maximized cultural impact by that science. We seem to share a belief, some more tentatively than others, that the radical behaviorist philosophy that informs our science can best be preserved to play its important quality-controlling role if the whole discipline (in which the philosophy, science, and spawned behavioral technologies are encapsulated) is organized independently.

This brings us to the threshold of issues about which there seems to be much contention. How shall our movement be presented to the world, and especially to the broadly construed “behavioral” community? This is our version of an age-old marketing question. I think that an important and practical way to put it is this: “What is the term *behaviorology* to connote?” ...Or, “what shall be our public image?” Shall the term behaviorology, when it arises among the members of the behavioral community at large, connote radical behaviorism (the philosophy of our science); shall it imply the experimental analysis of behavior, perhaps limited to the Skinnerian variety; shall it connote a strictly *natural* science of behavior (especially human behavior)? In my view, none of those connotations of the name “behaviorology” are sufficient, because none of them relate to the critical essence of the behaviorology movement, which is the *independent* organization of this discipline. The bottom line is that I believe that we should represent our behaviorology movement to the public (that is, we should *educate* the public) in such a way that, when the term subsequently arises among the people, it first of all means *independent discipline* ... and only then, those other things as well.

We can explore the implications both with and without that independence connotation in place: To begin, we can each name several important behavioral people who believe that an independent discipline is a bad idea and who, instead, are working to change psychology into the same kind of science that we respect, informed by the philosophy of radical-behaviorism. The people in that group pursue a natural science that we would agree rep-

resents a kind of behavior analysis that is quality-controlled by Skinner’s radical-behaviorist philosophy—in short, they share with us all or most of the other qualities of our behaviorology movement—expect for the commitment to disciplinary independence. If the adjective “behaviorologist” does not connote the political quality of support for disciplinary independence and instead connotes *only* the scientific and philosophical qualities of the movement, then those people *are all behaviorologists too*. Our name will have been reduced to a synonym for “*radical-behavioristic behavioral scientist*.” My own position has long been that those who are like us in all ways expect commitment to the independence of the discipline should keep their traditional designators—phrases such as *behavioral psychologist*, or the all-encompassing *behavior analyst*—and that *behaviorology* and its various grammatical forms be reserved for persons and events associated with disciplinary independence. Only organizational independence portends avoidance of the politically enforced compromises of our philosophical and scientific integrity that are inevitable when we operate as a minority within a community that favors other ways of thinking.

If behaviorology is *not* about independence, then what *is* it about that would justify the special effort that we have all made on behalf of it? Have we engaged in all of this effort simply to provide a new name for the Skinner-inspired movement to change psychology? (The psychologists who are trying to change psychology into a natural science, including many “behavior analysts,” *have* been looking for a new name lately, and my guess is that “behaviorology” would suit many of them.) One concept of TIBA (and the behaviorology “thing”) has it cast as an enclave of final retreat for pressured radical behaviorists who seek philosophical and scientific asylum there, and from that haven make forays back into the *existing organizational arrangements* extant in the culture to wage battle. This does not have us developing a new discipline, but rather has us providing a kind of scientific rest, recreation, and refurbishing operation for those who are fighting to change other people’s disciplines—the China Beach of the traditional behavioral movement. We cannot do both (they are not compatible missions), so which is it going to be?

A number of radical-behavioristic people see themselves in the role of what might be called a centrist. They support the general purposes of the grand behavioral movement as a whole and appreciate the kind of group-arranged contingencies that only a coalition of that overall size can arrange. They tend to be reinforced by big-group power and by the kinds of big effects that it can produce. For many such consolidators, the appeal is a matter of simple practicality: Only that level of activity can have an immediate impact on the culture, and it is with those kinds of immediate (and, at that level of

analysis, important) interventions that they remain preoccupied. They see their personal role as holding together a far-flung movement whose factions are prone to drift away. Tactically, these persons operate by public expressions of respect for *all* such factions and for the respective principles important to those factions. They keep tabs on all or many of those *behavioral* subgroups. Typically they join some of them. Such centrists will usually focus on the good that a given faction can do for the general behavioral cause, and, if they are a part of that group, they will work sincerely to accomplish those things. If necessary to their acceptance within a given faction, centrists will display enthusiasm for acceptable faction causes, while working to undermine or diminish competitive aspects of the faction's relations with other facets of the overall "behavioral" community. Such people compromise philosophical and scientific integrity to create the powers of political consolidation.

But regardless of the personal support that a centrist can muster for the activities of a straying subgroup, the centrist's allegiance is not anchored to the causes of that subgroup, but is merely aligned with *some* of them. Above all, the centrist will work to keep the mission of that faction defined in accordance with the interests and course of *the larger coalition* and will not accept definitions of the mission or the objectives of the faction that fail to respect those of the larger movement. In our case, that manifests in the form of demands that our faction respect the continuing efforts of some radical behaviorists to change psychology. At one level of consideration such respect is easy. They have committed their lives to one course of action, and we, ours to another. We and they can peer respectfully at one another across the widening gap without directing campaigns of personal denigration at one another. Time will tell who best spent their professional lives. But a more serious difficulty threatens us when centrist colleagues insist that we must respect those people through a careful avoidance of any member qualifications or organizational imperatives for our movement that would preclude those psychologists being construed, by themselves and by others, as "behaviorologists." *Such a compromise* amounts to nothing less than the abandonment of our mission to attain disciplinary independence.

It has taken me some time to understand the special strength with which certain colleagues have been critical of my activities on behalf of this discipline. The high energy with which they have targeted my style seems more related to their disturbance about the basic essence of the behaviorology movement. It is just that I have been more explicit than some others about the issue of disciplinary independence, including how people must behave in certain situations to insure its attainment. In doing so, I have become something of an easy target for those who are ambivalent about disciplinary independence or op-

posed to it—especially because my style has often been frank and thus created the occasions. Indeed, I may need, ... perhaps benefit from, and possibly even appreciate the charm school lessons that those critics seem anxious to prescribe. However, increasingly, their motives are becoming more clear as their own political styles become more transparent.

At a more macro-level of analysis, in a retrospective view, we see that some who wanted to change psychology had to step outside of psychology in order to maximize their effect upon the psychology establishment. They adopted the affectations that characterize the quasi-independent Association for Behavior Analysis (ABA). Although they have never constituted all of the ABA membership, from their satellite ABA platform orbiting the psychology planet, their fundamental concern has remained about psychology, and they have focused the impact of their ABA-based activities upon the discipline of psychology. Today there may even be a subset of dissatisfied behavior analysts who seek a similar independent platform from which to maximize the effects of their change efforts upon ABA per se (and in some cases back through ABA to psychology). If they were to operate from within the behaviorology ranks, or in positions of leadership, they would steer the course of TIBA and the behaviorology movement, not according to its *own* proclaimed cultural mission objectives, but according to its controlling effects on ABA and, indirectly, on organized psychology, in which they retain a substantial if covert nurturing interest. This goes to the fundamental issue of why we exist and to the matter of exploring the motives of our leaders before we choose them. Are we to be a peripheral ploy of some sort, or even an insulated archive of ideological purity that is really meant to have its ultimate effect merely on other disciplinary establishments, or are we dedicated to our constitutional purpose of an independent natural science discipline of behavior-environment relations for its own sake?

Right now [1990] the behaviorology movement, as a result of declaring a commitment to an independent discipline, remains unattractive to large numbers of important behavior analysts and behavioral psychologists. Many of them are doing high quality science. This creates the interesting spectacle of much of the best science of our discipline being done outside of what we have defined that discipline to be. The image-enhancing benefits of their scientific work continue to accrue mainly to organized psychology rather than to behaviorology. Can we live without those people, or must we have them? The price of wooing those people is to downplay the independence aspect of our mission. I think that at least some of them could become persuaded to talk the independence line, but few would mean it.

At the outset, I did not anticipate how fundamentally unpopular a *seriously* independent disciplinary movement

would be (as opposed to the lip-service variety of independence that some ABA folks like to toss around). It now seems obvious that to attract the many behavioral psychologists, behavior analysts, and others who remain essentially focused on changing traditional disciplines, organizations, and operations, we would have to redefine TIBA and the behaviorology movement as merely the locus of a scientist-credentialing operation. We would have to ignore the fact that some people, whom we would be recognizing as eligible to call themselves behaviorologists, would be working *against* the interests of disciplinary independence. Under that approach, it would have to be acceptable to us that we certify that Dr. So-&-So is a bona fide *behaviorologist* even while Dr. So-&-So himself denounced the idea of disciplinary independence. Such certified *behaviorologists* would go back to their psychology departments and not only spend their lives futilely trying to influence their cognitive colleagues, but would take the explicit position that behaviorology *was* psychology (or what psychology should become) and would teach behaviorology *as* psychology in the same way that psychologists every place now teach behavior analysis *as* psychology (with all of the requisite curricular compromises). Because there are now far more individuals so inclined than those who favor disciplinary independence, if the behaviorology movement became attractive to all of those people because it afforded them some sort of de facto license to behave as described above, their numbers (and collective voice) in TIBA could soon overwhelm any *serious* disciplinary independence drive within our movement.

The notion, entertained by some leaders within our behaviorology movement, that a small right-thinking elite can indefinitely maintain control of a movement and thus prevent the drift away from commitment to ultimate independence is, I believe, a dangerously flawed concept that, to at least some extent, has already been put to a failed experimental test within ABA. There, the issue was radical behaviorist philosophy perhaps more than disciplinary independence, and as I see it, the original radical behaviorist leaders have not succeeded in holding ABA together as a bastion of radical behaviorism.

A distinction must be made between (a) a behaviorologist who (were we to tolerate it) would work within organized psychology, not as a behaviorologist, but as a behaviorological *psychologist* there to change psychology into a natural science discipline—and (b) a person who would work within organized psychology as a behaviorologist, not *for* the integrity of psychology, but for the emergence of an independent behaviorology. The former is, and remains, a psychologist; the latter is, and remains, a behaviorologist. The latter type uses the resources and opportunities afforded by that person's current entrapment in organized psychology to teach about the differences between psychology and behaviorology, to

emphasize their basic incompatibility, and to press, not for change in psychology, but for conceptual conservatism within *psychology* coupled with the divorce and emergence of the very different *behaviorology*.

I support the latter role for behaviorologists within psychology. It is, of course, the role that *I* play there, because like many others in our movement, the accidents of history have left me employed in a psychology unit with psychologists. However, I do not give them cause to find that circumstance agreeable, nor, to the extent that I can prevent it, do I allow my work there to accrue to the benefit and image-enhancement of organized psychology. To the extent that I can prevent it, I do not allow myself to be used as a living demonstration that organized psychology can operate smoothly and effectively on the backs of such forced labor. This has nothing to do with personal style, ...with politeness, dignity, or propriety. The issue here is simply this: When a behaviorologist allows his or her net professional effect to accrue to the benefit of a competitive discipline—*especially when it amounts to an invalid demonstration that behaviorology can be made to work well as a functional piece of psychology*—then that person's net effect is more damaging to the behaviorology movement than helpful to it. Colleagues who purport to be behaviorologists, and yet who do that sort of thing, offend me insofar as they are violating my professional discipline-related ethics, which are those of a natural science community.

I find that the continued muddling of the concepts of *applied field* and *basic discipline* (or analytical paradigm) is interfering with the analysis of these issues. Within our culture there are only a few distinctly different *major* approaches to analytical thought *about behavior*. Here is what I mean by that: When I am preparing myself to teach (which is *my* applied area), my culture offers me only a few major ways to think about the relevant behavioral events that I will encounter in the field of teaching. To name the obvious and familiar ones, I can think behaviorologically, essentially relating environmental variables to behavioral events; I can think psychologically, relating behavioral events to cognitive processes which may or may not include appeals to metaphysical influences; and I can think purely metaphysically by relating behavioral events to metaphysical variables in other-world domains. Because, in my field of education, students have long been required to study psychology in order to acquire their basic analytical approach, almost all educators are psychologists as far as their basic analytical philosophy-science paradigms are concerned. But then, so are almost all nurses, lawyers, advertisers, and practitioners in hundreds of other applied fields. The culture offers me hundreds, maybe thousands, of *fields* in which to apply my basic way of thinking about behavior. The basic science of behaviorology is not one of those applied

fields; it is a basic science, which can be applied to the problems in *any* of those applied behavior-related fields. So is psychology.

Psychology is our most pervasive and direct competitor in the *way-of-thinking-about-behavior* market. We, of course, entertain the strategy of more accurately defining psychology, which clarifies its distinctions from our own discipline. Our competition with psychology is minimized when the two disciplines are construed to be different and hence not applicable to the same problems. We also encourage psychologists who seem to be doing likewise. For example, most of us in behaviorology probably encourage the trend in psychology toward brain science, because, reduced to physiology, psychology gets out of our way as we focus on behavior-environment relations. We discredit the metaphysical aspects of psychology as unworthy pseudo-science (see Ledoux, 2000, 2001) in the hope that psychology will lose its undeserved standing among the respectable sciences (and in our dreams, psychology is even expelled from the academies to be replaced by effective natural science).

Nevertheless, as of today, the psychologists who operate as faculty members in my department, are teaching new educators (a) that psychology provides a way of thinking about behavior that will permit them to solve the problems in teaching that they will encounter as educators, and (b) that psychology is an alternative to behaviorology (which educators need not study beyond the level of a superficial survey that the psychologists themselves will obligingly provide as a brief unit of study under the label of “behavioral psychology”). I compete directly with those psychologists for contact with every student whom I am permitted to teach. In turn, each behaviorology-informed graduate must compete for a job with psychology-informed graduates, usually regardless of the behavior-related field in which that job opening occurs. I see the behaviorology movement locked in direct competition with organized psychology in the cultural marketplace, and I do not foresee that that is likely to change for a very long time.

Implicit in what I’ve said here is the notion that we need two levels of consideration to deal most effectively with the issue of our relations with psychology. On the one hand, it is reasonable to suggest that we simply *ignore psychology* and go about the business of developing *our science*. Such an approach addresses the intrinsic natures of the two disciplines. According to this argument, we should attend to our own complex and interesting scientific activities and not be distracted from developing our own discipline by an on-going and sometimes emotional preoccupation with what the “other guys” are doing. What *we* are developing is practical ... useful. It directly supports a wide variety of behavioral technologies important in our culture. Let the psychologists continue to pre-

occupy themselves in ways that are not equally worthwhile. While psychology continues on its path to no place, we can busy ourselves making sure that behaviorology continues to gain strength and relevance.

However, while psychology does not provide the most effective support for behavioral technologies, it nevertheless completely dominates the cultural niche reserved for whichever basic behavioral discipline can do so. Given that reality, the behaviorology movement necessarily faces a long and competitive contest, largely with organized psychology. Here we address the struggle for stall space in the cultural marketplace. After a student takes my beginner’s graduate class in education, that student can continue through a traditional psychology-based curriculum or through a different one organized behaviorologically by the small faction of behaviorologists within my academic department. This is a student who, entering the department, cannot even discriminate the separate disciplines, and the psychologists, for their part (often including the student’s advisor), generally deny the validity—even the reality—of the differences. Unless I can persuade that student that the differences are real, and that they are important, and make clear to that student the nature and especially the implications of those differences, that student is going to be led through the psychology-controlled curriculum, become a psychologically informed educator, and add his or her contribution to the continuing failure of American education.

When my behaviorology colleagues insist to me that we are *not* in competition with psychology, and do so in ways that confound these levels of consideration, I stand confused about what they mean. The matter of when, and in what contexts, we should ignore psychology, and when, and in what contexts, we must explicitly and directly compete remains, in my opinion, a critically important issue for our movement. For my part, I do not intend, if I can help it, ever to lose one of my students to psychology simply because, out of some misguided notion, I failed to sharpen that student’s discriminations between his or her psychological and behaviorological training and career options.

It strikes me as bad enough to let philosophically misspent science pass unchallenged, but, as scientists, we sell out natural science in general when we go further and pretend that it is scientifically acceptable to flirt with the metaphysical. Historically, psychology had origins rooted in both natural philosophy and mystical superstition, but the emergent modern psychology is laced with assumptions of mind-body dualism and explanatory allowances for ethereal body-directing self-agents. I do not see how behaviorology can claim a place at the round table of the natural sciences if we allow ourselves to appear to be extending public recognition and visible scientific respect to a discipline devoted to the superstitious preservation of

autonomous man—which we do when we treat psychology as worthwhile in public.

I would separate, conceptually, this basic issue from that of the *tactics* by which the often isolated members of the behaviorology movement conduct the mission-related activities of that movement. The style and skill with which behaviorologists conduct their respective disciplinary relations with the psychology community requires its own kind of tactical consideration. However, tactics are one thing; confusion about the issues is another. One important function of our collegial verbal community, organized under the rubric of *behaviorology*, is to afford mutual assistance, and engage in mutual shaping, to render those kinds of discipline-related activities optimally effective.

Best regards

Lawrence E. Fraley

Conclusion

The differences of opinion to which this essay pertained extracted a far greater toll from personal social relations than from the emerging behaviorology movement. In historical assessment, the behaviorology movement can be seen to have gained strength in the aftermath of the debates of 1990. Fortunately, the behaviorology movement has continued to avoid the compromises with superstition that have eroded the integrity of so many behaviorists. After 1990, the *International Society for Behaviorology* was formed to attend to the maturation of the science and to operate the effective and worthwhile annual behaviorology conventions. On another front, *The International Behaviorology Institute* was soon formed to concentrate on the development of the behaviorological training mission. Across the remainder of the 1990s, those two important operations within the behaviorology movement were preparing to bring an independently organized natural science discipline of behavior–environment relations to an ambient culture that we believe to be in desperate need of the potential contributions of our uncompromised natural science of human behavior.♣

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Two Listservs as Online Magazines

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Charles Darwin, Behaviorist

John W. Eshleman

Optimal Instruction Systems

In 1872 Charles Darwin, of earlier “Origin of the Species” fame, published a book titled *The Expression of the Emotions in Man and Animals*. On the back cover of the paperback edition I have, the blurb reads, “Darwin’s work of 1872 still provides the point of departure for research in the theory of emotion and expression.” That may be true for the discipline of ethology, as Konrad Lorenz states in his preface to the edition that I have. It does not appear true, however, for either psychology or for behavior analysis. Lorenz comments that psychology has largely ignored Darwin’s work in the area of emotions and their expression. This ignorance likewise appears evident with behaviorists who express some interest in the study of emotions. When discussing emotions they may fail even to extend a courtesy reference citation to Darwin’s book. To the degree that this is so, it is tragically ironic, especially because it turns out that Darwin was something of a behaviorist, though not in the modern sense of course. That’s what this brief essay covers.

Darwin began his study of emotions and their expressions in 1838, a full century before B.F. Skinner’s magnum opus, *The Behavior of Organisms*, was published. Darwin used as his research basis the study of infants, the insane, and animals. He had people judge photographs taken of various expressions and then had the judges decide what the expressions represented and which emotions were being exhibited. He selected infants, insane people, and animals as objects of study mainly because, as he contended, they do not have means or methods of concealing their emotions. Also, Darwin tried having people judge expressions in the paintings and drawings made by great artists, but discovered that these illustrations did not work very well as sources of information for subjects to judge.

While not a behaviorist in the sense we have come to know and appreciate, we cannot fault Darwin for that difference since his book was published about 70 years before Skinner’s 1938 book. Darwin lived and worked long before any behaviorist paradigm appeared, let alone Skinner’s. Accordingly, much of Darwin’s writing seems quaint, out-of-date, and even archaic. Nevertheless, Darwin did anticipate modern behaviorism to a rather surprising extent. This anticipation comes with respect both to the scientific methods he used, concepts he used, and how he wrote about his subject matter.

First, Darwin’s work focused on behavior. He studied the movements of the organism, human and animal, and the emotional expressions produced by movement. He even used the term “movements,” which later on became a keyword in Skinner’s 1938 definition of behavior, and likewise Lindsley’s 1964 definition of a movement cycle. Moreover, Darwin observed that the movements characteristic of emotion were often “slight” and “fleeting.” The term “slight” indicates variations of behavior along an amplitude dimension, and specifically action at a lower end of an amplitude scale. The opposite of “slight,” at the other end of such a scale, would include actions identified as “extreme” or “loud.” Darwin also arranged for subjects to judge photographs illustrating the large-scale movements and extreme expressions, too. So, here we see an important reference to an amplitude scale of behavior, which, interestingly enough, behaviorists have yet to recapitulate or even to rediscover.

Darwin’s observation about some emotions being “fleeting” connotes the brevity of many movement cycles. The cycle is here one instant, gone the next. To some degree this observation anticipates the behavior analytic use of equally fleeting responses—a bar press is here one instant, gone the next. And thus it alludes to the methodological problem of how to capture and then record such fleeting events so they can be measured and analyzed. Skinner’s eventual answer to that problem was through the development of an operant research chamber that contained a useful, reliable manipulandum. Pressing a bar was fleeting, but the event record and counter increment persisted. “Fleeting” also alludes to the value of frequency as both a universal measure and dimension of behavior, because a “fleeting” expression is one that occurs in time and can be counted, if it is directly measured of course. A “fleeting” emotion is also one that can repeat, so perhaps its frequency would be as important as its amplitude.

Second, while he did not know about behavior–event relations as we now know them, Darwin does refer to “stimuli” in his book. I found that rather interesting when reading the book. Of course, the word “stimulus” is an old Latin one, which goes back to the agrarian culture of ancient Rome. Back then, Roman farmers used “stimuli,” which were sharp, pointed sticks, to prod cattle to move. The farmers needed to move cattle through chutes in order to count them, for purposes of buying and selling. So, they had to have some means to get the cattle to move into and through a chute. A “stimulus” did the job, producing the desired “response.” Prod the animal with the sharp, pointed stick, and it moved. So, culturally, the notion of “stimuli” being used to prod an organism into action—to elicit or to evoke a particular, desired response—has been around for quite some time. In any event, Darwin used some of the same terminology that we use, though in that earlier, more restricted usage more pertinent to an “S-R” paradigm rather than to Skinner’s.

In addition to his comments about stimuli, Darwin wrote this rather interesting conclusion that relates to contingencies of reinforcement:

I have now described, to the best of my ability, the chief expressive actions in man, and in some few of the lower animals. I have also attempted to explain the origin or development of these actions through the three principles given in the first chapter. The first of these principles is, that movements which are serviceable in gratifying some desire, or in relieving some sensation, if often repeated, become so habitual that they are performed, whether or not of any service, whenever the same desire or sensation is felt, even in a very weak degree. (Darwin, 1872, p. 347)

Darwin's description would seem to anticipate both positive reinforcement ("gratifying some desire") and negative reinforcement ("relieving some sensation") respectively. Granted that his terminology bespeaks a hedonistic perspective about these processes, but even so, it is not far removed from our more functional descriptions of whether consequences are added or subtracted and whether the behavior increases or decreases as a result. Furthermore, Darwin's comment anticipates behavior having some sort of function ("serviceability"), not just some happenstance epiphenomenon. Next, he anticipates fluency ("often repeated, become so habitual"). And finally even anticipates schedules of intermittent reinforcement ("whether or not of any service, whenever the same desire or sensation is felt"). Not every instance of the movement cycle produces the same subsequent event effect, or needs to do so. Responses that do not produce the subsequent event are "not of any service" in that regard. Overall, the concept of the functional relationship has some early dawning in this whole passage. The intriguing question is whether or not Darwin or contemporaries would have discovered the contingency of reinforcement more than a half century before Skinner's book arrived.

Darwin furthermore demonstrated the same commitment to the behavior of the organism as a whole that modern behaviorists have. Well, of course. The "organism as a whole" was articulated by Jacques Loeb as a scientific organizing principle, and also by a succession of later scientists including B.F. Skinner. But the foundation for this principle goes back at least to Darwin, if not further back. It would be more proper for me to observe that these later scientists demonstrated the same commitment that Darwin did to the organism as a whole. In any case, while Darwin concentrated on facial expressions, he did not limit his study to them. Indeed, where appropriate, he mentioned the movements and postures that the whole person exhibited when expressing an emotion. When discussing the expression of emotions of animals,

he likewise considered the whole organism. For example, Darwin's book contains some interesting, if perhaps amusing, drawings of cats arching their backs and puffing out their tails, with ears drawn back—the behavior of the whole cat, if you will. You can't get any more whole organism than that. So, the basis of Skinner's foundational principle of studying the behavior of the organism as a whole surely extends back to Darwin, even if by way of Loeb.

The Amplitude of Emotions and Their Control

As noted already, Darwin also recognized, to some degree, the fact that emotions range along an amplitude scale. An example includes emotions evoked by humor: smiles, grins, chuckles, giggles, laughter, and the kind of "rolling on the floor belly laughter" at the high end of the spectrum. While these descriptors may seem to form a broken and discrete amplitude scale—and may well do so—they do denote the fact that the expression of the emotions varies in intensity. In today's world, with our emphasis on functional relationships, we might find that behaviors at different amplitudes also have different functions, much as behavior at different frequencies has different functions or effects. We might—and probably should—chart the behaviors of different amplitudes separately, as Og Lindsley (private communication, March 2001) suggests. We might find that the frequencies of high and low amplitude responses accelerate and decelerate independently of each other. Recall that amplitude is generally orthogonal to frequency and independent of it.

Skinner (1957), on page 438 in the chapter on "Thinking," suggested that vocalized verbal operants range along an amplitude scale. He arranged them top down, from shouting, which is vocalizing at the highest amplitudes, through normal conversation in the middle, down to subvocal speech and even further on down to verbal responses of "unclear dimensions" at the lowest amplitudes. Vocalized verbal behavior can and does vary in amplitude. We vary the amplitude of our vocalizing all the time. We speak "up" and "raise" our voice, and also we "lower" our voice and "pipe down." We subvocalize verbal operants so they will not be heard, in order to avoid punitive consequences were we to speak audibly. And indeed, modulating the amplitude of vocalized verbal behavior is something our culture deems important. We encourage children to read out loud when we are teaching them to read, but later on we want the same reading to occur silently, a reduction in the amplitude of the behavior below the level of producing sound.

Because emotions can be and are expressed vocally, as well as by facial and bodily expression, they can vary along a similar amplitude scale as the one Skinner sug-

gested for vocalized verbal behavior. Likewise, our culture demands that people modulate their emotions, just as it does with the loudness of speaking. We expect people to control their rage, or to temper their anger. We ask them to “calm down,” where down implies a reduction in amplitude. We ask them to lower their voice, or to not raise it, which are again demands about modulating amplitude.

One of the various criticisms leveled against behaviorists and against behaviorism concerns the question of “control” of behavior. Behaviorists are charged sometimes with being “controllers,” and wanting to “control” behavior. (We do, but primarily as a means to understand it scientifically.) Yet, in the everyday world, the same people who might level such criticisms not only have no problem with wanting others to modulate amplitudes of speaking and emoting, they demand it. Our culture may have difficulty accepting that operant behavior is controlled, but has utterly no difficulty in knowing and expecting that speaking and emoting can be and need to be controlled. We insist that speakers speak up! We insist that angry people calm down! So, perhaps recognition that the amplitude of emotions can be controlled, and often needs to be controlled, where such control is both accepted and desired in our culture, can be our entrée into gaining wider acceptance of the science. If so, then Darwin’s study could help pave the way, for his work has immediate application as a point of departure for further scientific study of the control of emotions.

Conclusions

In recognizing Darwin’s book on emotions and their expression as a useful precursor to our science and as something yet still relevant and worthy of review, we should not miss one irony. Our science has as its epistemological cause—and-effect basis the concept of selection by consequences. This differs from physical cause and effect. It also descends from Darwin’s other work on the natural selection of species. Species originate by way of the operation of natural selection at a biological level. Likewise, operant behavior changes by such a selectionist modality at a behavioral level, as do cultural practices at a cultural level. We owe discovery of this means of cause and effect directly to Darwin and his *Origin of Species* book. However, ironically, the concept of selection by consequences is not clearly evident in Darwin’s book on emotions and their expression. He did not discern the fact that behaviors arise and go away in the same way lifeforms do. So, we could quibble and say that Darwin, of all people, was not a selectionist when it came to behavior, but that might be unfair given that he did live and work before there was even much of a glimmer that behavior ever could be a subject matter in its own right,

studied scientifically, with respect to application of selection by consequences.

While one cannot retrospectively make Darwin into either a radical behaviorist or any other kind of modern behaviorist—and that is not my intent—it should be clear that his contribution does anticipate the eventual rise of behaviorism along some important venues. Moreover, it should be clear that his book and what it covered would be useful reading as a starting point for the study of emotional behavior, even if much of what Darwin said is now considered obsolete. Not all of it is obsolete, and his methods and observations seem strikingly modern at times. If nothing else, his emphasis on watching the actual behavior and in noticing subtle aspects of behavior ought to be taken as useful advice, if for no other reason than emotions are not simply “psychological states” of being nor are they coterminous with “private events.” Rather, emotions are responses of the whole organism, often highly overt, public, and visible in their expression, and thus not usefully relegated to “states of being” whether psychological or otherwise. We make an equally serious blunder to whatever extent we cast emotions solely or principally into the category of private events. Darwin’s book stands as strong testimony that emotions are behavior of the whole organism, and as a rule are quite public and visible and are anything but private events. They are actions, elicited or evoked, varying in amplitude and frequency, that have some important effect or other salient function. Our task as scientists is to study them for what they are, and where necessary to help develop an applied technology of controlling emotions and their expression.

Adding Charles Darwin to the pantheon of behaviorists that includes B.F. Skinner and Ivan Pavlov and others would not be doing wrong. In fact, it would be the right thing to do. We credit Darwin for selectionism. He contributed directly to the study of behavior. We should credit him for that, too.✻

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A Parable of Past Scribes and Present Possibilities

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A parable is usually an orally told story, with lots of repetitious phrasing to enable easier remembering, that illustrates a moral lesson. While they are typically timeless, my own familiarity with parables originates with those set in another time and place—2000 years ago in the “middle” East. The present parable, however, is set much closer to the present. The “scribes” of the title refers to writings or to those who write. Another shorter story of mine sets the stage for this parable, along with a short reading from a leading educational behaviorologist, Glenn Latham. Here is the shorter story, titled *Jamie’s Lesson*:

Ask yourself:

Do you go to school?

Do see other kids doing mean things?

And do you see others doing nice things?

Well, this is a story about Jamie, and about an early lesson she had on helping others learn to do nice things.

Jamie and her classmates were out on the playground. It was the middle of winter, with a cold sun in the bright blue sky, and a thin glaze of ice on the ground. However their teacher, Mr. Glenn, saw Jamie off to one side, sniffling. Going over to her, he asked, “Jamie? Are you okay?”

“I don’t like Freddy!” she replied. “He’s so mean. He said I was clumsy, just because I slipped on the ice...”

“I can understand why you are upset,” Mr. Glenn calmly said. “It’s hard when other people do things that hurt your feelings.”

“And everyone laughed, too,” Jamie added.

“It’s even harder when others give attention to bad things,” Mr. Glenn continued pleasantly. “We have talked in class about a better way to handle these things. What is that better way?”

With a little hesitation, Jamie replied, “We said it’s better to pay attention when people do good things.” After a pause, she continued. “But Freddy doesn’t do any good things!”

“Well,” Mr. Glenn said, “at times like these, it is hard to see good things. But tell me just one thing Freddy has done recently that was good.”

“Well,” Jamie said, deep in thought. Then, beaming, she said, “yesterday I saw him go right over to a little kid

who fell off the slide, to see if he was okay. And, this morning he helped pick up a box of spilled pencils—and he wasn’t even the one who spilled them. That was nice of him.”

“Wow!” said Mr. Glenn. “That’s great. That’s two things! Did you tell him you thought that was nice of him?”

“...Oops,” said Jamie.

“You can still tell him, if you want to,” said Mr. Glenn. “That will still help him do more good things, and become a better person.”

“That would be good,” Jamie replied. “I will!” And off she went to do so.

And you can do that too. Just once today, try to notice something good that someone does, and tell them it was nice. Do that every day, and you will surely make a better world.

Now, though, let us consider an even shorter story, this one by a leading educational behaviorologist, Dr. Glenn Latham. He was a professor of education at Utah State University in Logan. And as the Research Director of the Mountain Plains Regional Resource Center, he spent much of his career helping schools all over the Western half of the USA. In his book, *Behind the Schoolhouse Door: Eight Skills Every Teacher Should Have*, he reports some of that research. He begins with this story (which I quote in its entirety; see Latham, 1997):

A boy was seen searching frantically for a coin he had lost. It was dark. The boy was down on his hands and knees beneath the corner street light looking for his coin. He was very intent. A man happened by and asked the boy what he was looking for. It went like this:

Boy: “I dropped a coin and I’m trying to find it.”

Man: “Where did you drop the coin?”

Boy: “Oh, I dropped it over there,” as he pointed to a spot well beyond the area illuminated by the street light.

Man: “If you dropped the coin over there, why are you looking for it over here?”

Boy: “Because it’s lighter over here.”

[Prof. Latham continues:] Like that little boy, the education decision makers of America, over the centuries, have spent their time and energies—wasted their time and energies—looking in all the wrong places for the answers to education’s most compelling and perplexing problems. Rather than looking for the answers where the problems are, that is, in the classroom where education takes place, they have been looking elsewhere. In fact, they have been looking almost *everywhere* else. With what effect? Nothing of substance has changed...

[In the next paragraph, Dr. Latham continues:] In 1993, Dr. David Britt, President of the Children's Television Workshop [well-known creators of the *Sesame Street* TV series], noted, "Schools today are one of the few workplaces in our society that our grandparents would easily recognize." (p. 1)

Now, after those stage-setting stories, here is the parable:

And it came to pass in those days that the rulers of the citizens were prompted to act. They were prompted to act because the citizens were worried about what went on in the rooms where the young spent their days. For in those rooms, the young were to be instructed. As was expected, and as had been expected, of and by their parents before them, the young were to be instructed in how to scribe. And they were also to be instructed in how to read what they had scribed, and in how to read what others had scribed before them. And in this way they were to be instructed, and so learn, how to care for each other and how to care for their world. And this was good, and it was seen to be good by the citizens.

Now in the rooms where the young spent their days, they were to practice scribing, and reading what they scribed, and what others scribed too. They were also to learn to test what was scribed, and to apply that which was scribed which was found by the tests to be effective. For as they grew older, they were to so test, and to so apply, in many areas, such that their world would be a better place in which to live. They were to so test, and to so apply, so that their world would be a more just and compassionate place. And this too was good, and it too was seen to be good by the citizens.

Yet the citizens were worried about what went on in the rooms where the young spent their days. They were worried because the young were not being taught so well, and were not learning so well, to scribe and to read. And they were worried because the young were thus also not being taught, or learning, to test for, and to apply, that which was effective to make their world, the world of young and old alike, into a better place. And this was *not* good, and it was seen to be *not* good by the citizens.

And *thus* it came to pass that the rulers of the citizens were prompted to act. They were prompted to act, as they had learned when they were young, to test, and to apply, to benefit all. They were prompted to act to test what had been scribed about what should go on in the rooms where the young spent their days. And they were prompted to act to apply what was found by the test to be effective. For they wanted to so test, and to so apply, such that what went on in the rooms where the young spent their days would be effective. For they indeed

wanted the young, and so also the old, and so also the world, to benefit from what the young were taught, and learned, in the rooms where they spent their days. They wanted all to benefit from the young learning to scribe, and learning to read what they and others had scribed, and learning to test and also to apply. And this was good, and it was seen to be good by the citizens.

And so it came to pass that the rulers of the citizens gathered their tax collectors, and sent them out. Out they sent them, to all corners of the land, to collect lots of taxes. And these taxes were to be spent on the grandest test of the widest range of what had been scribed about what should go on in the rooms where the young spent their days.

And a mighty sum it was that they collected to spend on this grand test. Some ten billion pieces—as they counted their money—did they collect for this grand test. They collected it to test to find out and to apply what was effective in the rooms where the young spent their days being taught, and trying to learn, to scribe, and to read, and so on, and so forth, etc., etc... [Well, I shouldn't *always* provide the parable pattern perfectly, or you will still be reading this next week!]

And thus it came to pass that the rulers of the citizens began to act. With so much of their mighty tax money in hand, they began to act. They acted by gathering together all those who had scribed the many major views of what should go on in the rooms where the young spent their days. They gathered them all, and there were ultimately nine who stayed. They gathered them all, and had them begin the grand test. They began the grand test by beginning to apply what they had scribed. And they applied what they had scribed in many districts, each with several large places, with each large place having many rooms where the young spent their days.

Each of the nine views of the grand test had its own separate districts. And the districts of the nine were spread all across the land of the citizens who paid the taxes to make the grand test possible. What each of the nine had scribed is what each applied, each in its own districts, for many, many years. And this may *not* have been good. But it was at least interesting. And it was seen to be interesting by the citizens, at least the citizens who knew about the existence of the grand test (which was not that many—but that is perhaps a story for yet another parable someday).

And so it came to pass that the rulers of the citizens had much relevant data collected in each of those districts, each with several places with rooms where the young spent their days. They collected data for those many years in which the nine major views were applied in the grand test, and the tax money lasted. And the outcomes of each

of the nine views were compared. They were compared with the general outcomes from all the other districts of the land with places with rooms where the young spent their days. The outcomes of the nine views were compared *with the outcomes of all the other districts which partook not* of any particular one of the nine views. With all of these were the outcomes of the nine views compared. And this was reasonable. And it was seen to be reasonable by the citizens who knew about it.

And thus it came to pass that the results of the grand test became clear. And there was bad in the results of the grand test. And yet there was also good in the results of the grand test.

It came to pass that three of the nine major views were responsible for the young under their charge doing more poorly, *and sometimes much worse*, than the young across the land who were not under any of the nine. They did more poorly than these on most all of the measures that were maintained in the records, the records of the data of the grand test.

And it also came to pass that three others of the nine major views were responsible for the young under their charge doing *the same* as the young across the land who were not under any of the nine. They did the same—neither better nor worse—on most all of the measures that were maintained in the records, the records of the data of the grand test.

Yet it also came to pass that the outcomes were better for the remaining three of the nine major views. It came to pass that the three remaining views were responsible for the young under their charge doing better, *sometimes much better*, than the young across the land who were not under any of the nine. They did better than these on most all of the measures that were maintained in the records, the records of the data of the grand test.

Now, just knowing all these outcomes was good. And the citizens who knew of these outcomes, knew that knowing of them was good (even if not all the outcomes were good). But some, who actually held the credentials of educators, and who knew of these outcomes, refused to acknowledge this good. They were the powerful, supposed educators who were associated with the six views that were unable to demonstrate improvements benefiting the young. And *therein* rests a tale of woe that continues to plague the citizens of that land down unto this very day. Yet they still struggle to make the three beneficial views available to and for their young. And we should learn from their efforts.

What *should* have happened? And what happened instead? Listen, and understand, and take action!

And *then*, *it should have come to pass* that these results of the grand test should have been made known to all the

citizens of the land. For knowing these results of the grand test could have brought great joy into the hearts of the citizens of the land. For now they had good reason to apply, emphasize, and support those three of the nine views that were effective in helping the young become better able to scribe and read and test and apply and so on. And they also had good reason to set aside the other six of the nine views, the six that either had little impact, or had a negative impact, on the outcomes of the efforts of the young and of those who work with the young.

Now, *that* is how it should have come to pass, so that the young could do better, could do well. And the world of the young and old alike *could* be a better place. But it did not come to so pass. This was not good.

It should have come to pass that the views that led to little outcome change were little recommended, and little supported, *and little taught* to those who teach in the rooms where the young spend their days. This would have been good. And the citizens would have seen this to be good, as well as to have been a good use of their taxes. And the world would have been better off. But alas, this did not come to pass, which was not good.

And it should have come to pass, even more surely, that the views that led to *poorer* outcomes were recommended against, and were no longer supported, *and were not taught* to those who teach in the rooms where the young spend their days—just as physicians do not continue to recommend or teach treatments that are shown to be ineffective. And this would have been good. And the citizens would have seen this to be good, as well as to have been a better use of their taxes. And the world would have been better off. But alas, this too did not come to pass. This too was not good.

And it should also have come to pass that the views that led to *effective* outcomes *were* recommended, and *were* supported, *and were thoroughly and comprehensively taught* to those who teach in the rooms where the young spend their days. And this too would have been good. And the citizens would have seen this also to be good, as well as to have been the best use of their taxes. And the world would have been much better off. But alas, this also did not come to pass. This also, and more so, of all these, was not good.

Since these things did not come to pass, the citizens of the land have now seen a whole generation of their young sacrificed. They have been sacrificed to a scientifically and morally unsupportable preference for the views with the middling and negative outcomes. For those who scribed, espouse, and prefer these views (those that led to the middling and negative outcomes) are the ones who maintain the programs to teach the teachers who teach the young in that land. But the teachers are not taught; they are victims also. They were kept in the dark about the results of the grand test. And so the positive–outcome

views have been ignored, and the citizens who are aware of this mess have begun to speak of “Academic Child Abuse.” This indeed is not good!

So, just what did come to pass in the land of these citizens? What did lead to this great sacrifice of a generation of their young?

Here are some details:

Instead, it came to pass that those who scribed and espoused the three views that led to the young doing more poorly—and even many of those who scribed and espoused the three other views that had little effect—(these) were all also the darlings of those who were chiefly responsible for the training, throughout that land, of those who work with the young in the rooms where the young spend their days.

And it came to pass that they used their influence with the rulers to keep the rulers from applying the *substantive* results of the grand test. It came to pass that when the rulers finally acted on these results, the best they did was to continue to fund *all* nine views until the tax funds finally ran out after about twenty years after the grand test had begun. The funds finally ran out near the end of what the citizens called their twentieth century.

In that time the rulers continued to fund even those three of the nine views that had a demonstrably negative effect on the young. This was not good. Citizens could see it was neither good nor a good use of their tax dollars.

Needless to say, those among the citizens who were aware of these developments were, are, and continue to be outraged. And they also were, are, and continue to be active against what they see as an immoral contradiction of all and everything that the young were to be taught in the rooms where they spend their days...

And so, what will come to pass next? What will happen to the education of the children of that land? That remains to be seen. What happens next depends on the citizens of that land, and how well they are able to bring about restitution and application of the best results of the grand test. Thusly will they help bring about a more just and compassionate world for themselves and their young to live in.

The future depends on them, as indeed it depends on us, you and I, and how well we do those same things. For this has really been a parable about ourselves (i.e., about those in the USA).

Actually, I wish I could tell you that this parable was just that, a mere parable, a fable with moral lessons. I wish I could tell you that this parable had been merely made up to help us avoid some problem that had not yet occurred. But it is so much more than that. It is

real, all too real. It really happened [and I provide some references at the end so you can delve more deeply into the depths of this reality].

The fact is, you and I and our parents (in the USA) all contributed our tax dollars to run a grand test like the one in the parable. That test is officially called “Project Follow Through.” It was the most extensive, expensive, federally supported educational research project in the history of this country, and perhaps in the world (and a fairly extensive literature is available on it, although few seem aware of it, not even teachers). Here are some brief details:

The names of the approaches to education that were evaluated by this project—and organized here by outcome from best to worst (and not always in the conventionally equal numbers as in the parable)—are these:

The *three* approaches that brought about *better* outcomes are:

- ✦ Direct Instruction (which showed the best outcomes of all);
- ✦ Parent Education; and
- ✦ Behavior Analysis.

(And these three approaches are among the best foundation stones for building what some call “Quality Education.”)

The *single* approach that evidenced little or no effect is:

- ✦ Southwest Lab (SEDL, a bi-lingual approach).

And the *five* approaches that caused the *poorer* outcomes are:

- ✦ Bank Street (College of Education);
- ✦ Responsive Education;
- ✦ Tuscon Early Education Model (TEEM, Arizona, a whole-language approach);
- ✦ Cognitive Curriculum; and
- ✦ Open Education.

For all nine approaches, measures of the produced outcomes were taken in the affective/self concept area, in the cognitive/conceptual area, and in the area of basics (including language, reading, math, and spelling).

Those are a sample of details about the grand test, a grand test on which we Americans *actually spent about one billion dollars*. And yet *now we ignore the results!* And that is to the detriment of our children, our teachers, our society, and ourselves. It remains so, unless and until we move to implement the better-outcome approaches.

Will others around the world avoid our mistake of ignoring the results? Will they implement the better-outcome approaches, and so benefit from them? Will we join them? I sincerely hope all this happens.

And consider this: *Project Follow Through* was really only on the instructional and pedagogy side of educational concerns. What about classroom behavior concerns, and the relation of these to school violence? The discipline of natural science explanations of behavior, behaviorology, which informs the positive-outcome approaches of

Project Follow Through, also informs successful practices in the classroom. (The discipline that informs the mid-dling–outcome and negative–outcome approaches of *Project Follow Through*, and which has done so for decades, is the discipline of fundamentally mystical explanations of behavior.) The extension of behaviorological principles to education shows that the positive, pro-active, non-coercive practices and skills summed up by the phrase “Management, not discipline” (Latham, 1999) provide the *best practices* for handling classroom behavior concerns and maintaining the sanctity of the learning environment (another foundation stone for building Quality Education). For example, it shows how half of instruction time is typically lost to non-instructional disruptions, and by returning even half of *that* time to instruction—by implementing classroom management, rather than discipline, procedures—we would be essentially extending the school year by 40 days, without actually adding any days (see Latham, 1998). Perhaps more importantly, these procedures are also a major means of helping to prevent all levels of violence in the schools by removing the very basis of school violence.

Now, is that not the kind of practical, demonstrated solution we should be actively, morally, even insistently supporting and demanding, for the sake of our children, our teachers, our society, ourselves? I am compelled to think so. And I suspect that you agree. Then, we might also work with the many other related, and already tested and validated, solutions that are and have been available, but which have been similarly ignored, as the grand test results have been ignored. Let us work well with all of these effective practices.

If you and I, the citizens, think and act accordingly, then we *shall* soon see real improvements in what goes on in the rooms where the young spend their days. We *will* soon see more education in education.✿

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Minutes of the 2001 Meeting of the TIBI Board of Directors

Within the parameters of the organization's by-laws, the official 2001 annual meeting of the TIBI Board of Directors was held by phone during the last two weeks of July 2001.

Present: Four of four active board members—John Eshleman, David Feeny, Lawrence Fraley, and Stephen Ledoux—took part (as Glenn Latham had recently passed away). By the end of the meeting, several actions had been taken. All actions were achieved through consensus and are considered unanimous.

The actions taken concerned the status of (a) Glenn Latham, (b) the TIBI web portal, (c) TIBI's web course and certificate offerings, (d) a motion to elect Dr. Doreen Vieitez to the Board, and (e) the TIBI newsletter/magazine. The Board also received the Treasurer's report. Each action will be described in turn.

Glenn Latham Status. As described elsewhere in this issue, TIBI co-founder, faculty member, and Board of Directors member Glenn Latham passed away earlier in July. In honor of his continuing contributions, the Board voted “Member in Perpetuity” status for Glenn, a colleague who will be greatly missed. (Glenn's spouse, Louise, was informed of this action and approved of it.)

Web Portal Status. The Board agreed that a web portal like the current one was not an absolute requirement but would be retained if costs remained reasonable.

Web Offerings Status. Four courses are now on the TIBI web site, three of which comprise the Behavior Literacy Certificate. At least three other courses are in the process of being prepared for the web site, including one on autism analysis and recovery training. With the addition of the latter course, the Board considered that TIBI could offer a Certificate in Autism Recovery Training.

Election Status. Considering her continuing professional contributions to the behaviorology discipline and movement, through both her employment activities and her volunteer activities for several behaviorology professional organizations, the Board elected Dr. Doreen Vieitez as a member of the Board. Dr. Vieitez subsequently informed the chair of her willingness to accept election to Board membership. (Acceptance is a necessary step since Board membership requires the payment of additional dues.)

Magazine/Newsletter Status. The Board considered that (a) since the TIBI “newsletter” had always contained more professional paper content (i.e., minimally peer-reviewed magazine content) than newsletter material content, and (b) since it had appeared reliably at predictable intervals as planned, it should be upgraded to (non-glossy) magazine status. Consequently, the Board considered a range of alternative names, authorized the editor to obtain an ISSN for the magazine/newsletter, and decided to continue the volume/issue numbers under the new name. So, beginning with the Spring 2002 issue, TIBI’s magazine/newsletter will appear under the new name *Behaviorology Today* (ISSN 1536-6669).

Treasurer’s Report. The Board accepted the Treasurer’s report. These were TIBI’s finances from 1 January 2001 through 15 August 2001 (as some transactions were anticipated and reported to the meeting, and no other transactions were scheduled or occurred between the time of the meeting and that day):

BALANCE (as of 2001 January 1): US\$1704.19

INCOME:

US\$ 730.00	DUES
US\$ 25.09	INTEREST (on fee-free interest bearing checking account)
US\$ 755.09	TOTAL

EXPENSES:

US\$ 82.67	NEWSLETTER PRINTING
US\$ 33.79	POSTAGE
US\$ 699.25	WWW.BEHAVIOROLOGY.ORG COSTS
US\$ 815.71	TOTAL

ACCOUNT BALANCE ON 15 AUGUST 2001: \$1643.57

Standard procedure for minutes of meetings of the Board of Directors. The chair drafts the minutes and provides them to the other Board members who verify them, indicating additions and corrections. The chair then incorporates the changes and publishes the minutes in the corporate records and magazine/newsletter. These procedures have been followed with the current minutes. (Added at the end of the corporate-records copy are the signature of the chair and the date of 2001 August 25.)☺☻

TNT-8 Treasurer’s Report

This report would cover TIBI’s finances from 1 January 2001 through 15 August 2001. Since details were included in the Minutes of the annual meeting, they will not be repeated here. See those Minutes in this issue.☺☻

Always More at behaviorology.org

Be sure to visit TIBI’s ever-expanding web site regularly (www.behaviorology.org). Material is always being added and updated. After entering (as a visitor or as a member) you will be in the “Course Announcements” area, with several navigation buttons that are *always* to the left of the screen. Use these buttons to get where you want to go.

Several types of material from the newsletter are available. If you click on the “Course Information” button and then on the “Current Institute Info Docs” folder, you will find the most up-to-date Institute information documents. If you click on the “Course Information” button and then on the “Selected TNT Articles” folder, you will find a selection of useful newsletter articles. If you click on the “Course Information” button and then on the “TNT Archives” folder, you will find the complete newsletter archives.

Two other information areas receive regular additions. If you click on the “Course Information” button and then on the “TIBI Certificate Programs and Courses” folder, you will find the Institute’s educational offerings. If you click on the “External Links” button, you can access all the “Features” articles and links.

The other navigation buttons also lead to interesting materials. Be sure to try them as well. Also be sure to provide feedback on your site-visit experience. Your input is needed and welcome.☺☻

TNT Subscriptions and Back Issues

People can receive copies of this newsletter in ways other than as a member. People can subscribe without membership (US\$10 for an individual, and US\$20 for a library or other institution), and people can obtain back issues for US\$5 each. Contact TIBI for details. ☺

TIBIA Membership Benefits

Beyond the intrinsic value that TIBIA membership bestows by virtue of making the member a contributing part of an organization helping to extend and disseminate the findings and applications of the natural science of behavior for the benefit of humanity, and beyond the benefit of receiving the organization's publications, TIBIA membership benefits include the following:

- ☺ Members will have opportunities to present papers, posters, and demonstrations, etc., at the organization's meetings;
- ☺ Members who first join TIBIA in the last third of the calendar year will be considered as members through the end of the following calendar year;
- ☺ Members who first join TIBIA in the middle third of the calendar year will be allowed to pay one-half the regular dues for the following calendar year;
- ☺ A TIBIA member may request the Institute to evaluate his or her credentials to ascertain which TIBI certificate level most accurately reflects the work (and so, by implication, the repertoire) behind those credentials. The Institute will then grant that certificate to the member; as part of this evaluation, the Institute will also describe what work needs to be accomplished to reach the next certificate level. The normal processing fee for this service (US\$20) will be waived for members. For the processing fee of US\$20, a non-member may also request this evaluation and, should she or he ever join TIBIA, the US\$20 already paid will be applied to the initial membership dues owed. (Faculty teaching behaviorology courses can encourage their students to request this evaluation.)

TIBIA continuously considers additional membership benefits. Future iterations of this column will report all new benefits upon their approval. ☺

TIBIA Membership Criteria and Costs

TIBIA has four categories of membership, of which two are non-voting and two are voting. The two non-voting categories are Student and Affiliate. The two voting categories are Associate and Advocate. All new members are admitted provisionally to TIBIA at the appropriate membership level. Advocate members consider each provisional member and then vote on whether to elect each provisional member to the full status of her or his membership level or to accept the provisional member at a different membership level.

Admission to TIBIA in the Student membership category shall remain open to all persons who are undergraduate or graduate students who have not yet attained a doctoral level degree in behaviorology or in an acceptably appropriate area.

Admission to TIBIA in the Affiliate membership category shall remain open to all persons who wish to maintain contact with the organization, receive its publications, and go to its meetings, but who are not students and who have not attained any graduate degree in behaviorology or in an acceptably appropriate area. On the basis of having earned TIBI Certificates, Affiliate members may nominate themselves, or may be invited by the TIBI Board of Directors or Faculty, to apply for an Associate membership.

Admission to TIBIA in the Associate membership category shall remain open to all persons who are not students, who document a behaviorological repertoire at or above the masters level or who have attained at least a masters level degree in behaviorology or in an acceptably appropriate area, and who maintain the good record—typical of “early-career” professionals—of professional accomplishments of a behaviorological nature. On the basis either of documenting a behaviorological repertoire at the doctoral level or of completing a doctoral level degree in behaviorology or in an acceptably appropriate area, an Associate member may apply for membership as an Advocate.

Admission to TIBIA in the Advocate membership category shall remain open to all persons who are not students, who document a behaviorological repertoire at the doctoral level or who have attained a doctoral level degree in behaviorology or in an acceptably appropriate area, who maintain a good record of professional accomplishments of a behaviorological nature, and who demonstrate a significant history—typical of experienced professionals—of work supporting the integrity of the organized discipline of behaviorology including its organizational manifestations such as TIBI and TIBIA.

For all membership levels, prospective members need to complete the membership application form and pay the appropriate dues.

Establishing the annual dues structure for the different membership categories takes partially into account, by means of percentages of annual income, the differences in income levels and currency values among the world's various countries. Thus, the annual dues for each membership category are:

Other Category	Dues (in US dollars —\$20 minimum)
Board of Directors member	The lesser of 0.6% of annual income, or \$120.00
Faculty member	The lesser of 0.5% of annual income, or \$100.00

Membership Category	Dues (in US dollars —\$10 minimum)
Advocate member	The lesser of 0.4% of annual income, or \$80.00
Associate member	The lesser of 0.3% of annual income, or \$60.00
Affiliate member	The lesser of 0.2% of annual income, or \$40.00
Student member	The lesser of 0.1% of annual income, or \$20.00

TIBIA MEMBERSHIP APPLICATION FORM

(SEE THE NEXT PAGE FOR THE TIBI / TIBIA PURPOSES.)

Copy and complete this form
(please type or print)
then send it with your check
(made payable to TIBIA) to:

Dr. Stephen Ledoux
TIBIA Treasurer
SUNY-CTC
Cornell Drive
Canton NY 13617 USA

Name: _____

Member Category: _____

Office Address: _____

Amount enclosed: us\$ _____

Home Address: _____

Office Phone #: _____

Home Phone #: _____

FAX #: _____

CHECK PREFERRED MAILING ADDRESS:

E-mail: _____

Office: Home:

Degree/Institution*: _____

Sign & Date: _____

*I verify that the above person is enrolled as a student at: _____

Name & Signature of Advisor or Dept. Chair: _____

TIBI / TIBIA Purposes*

TIBI, as a non profit educational corporation, is dedicated to many concerns. TIBI is dedicated to teaching behaviorology, especially to those who do not have university behaviorology departments or programs available to them; TIBI is a professional organization also dedicated to expanding the behaviorological literature at least through the *TIBI News Time* newsletter and the *Behaviorology and Radical Behaviorism* journal;** TIBI is a professional organization also dedicated to organizing behaviorological scientists and practitioners into an association (The International Behaviorology Institute Association—TIBIA) so they can engage in coordinated activities that carry out their shared purposes. These activities include (a) encouraging and assisting members to host visiting scholars who are studying behaviorology; (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 dedicated to representing and developing the philosophical, conceptual, analytical, experimental, and technological components of the 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 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 the 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.☺

TIBI / TNT Information

TIBI News Time (TNT), the newsletter of The International Behaviorology Institute, a non-profit educational corporation, is published in the spring and fall each year.

TIBI can be contacted at:

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 Phone • Fax: (315) 386-2684 • 386-7961
 Electronically: www.behaviorology.org

The TNT newsletter editor is Stephen F. Ledoux.

To submit items for publication, contact the editor. Send items on a 3.5 inch Mac-formatted disk, in a program that can be placed in PageMaker 5.0, with a hard copy, to the editor at:
 SUNY-CTC • Arts and Sciences • Cornell Drive
 Canton NY 13617-1096 • USA
 Phone • Fax: (315) 386-7423 • 386-7961
 E-mail: ledoux@canton.edu

Authors' views need not coincide with official positions of TIBI. (Authors retain copyrights.)

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

**This journal (BARB) is under development at this time and will appear only when its implementation can be fully and properly supported.—Editor