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ABOUT BEHAVIOROLOGY

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

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

AMONG BEHAVIOR SCIENTISTS WHO RESPECT THE PHILOSOPHY OF NATURALISM, TWO MAJOR STRATEGIES HAVE EMERGED THROUGH WHICH THEIR RESPECTIVE PROPONENTS WOULD HAVE THE NATURAL SCIENCE OF BEHAVIOR CONTRIBUTE TO THE CULTURE. ONE STRATEGY IS TO WORK IN BASIC NON-NATURAL SCIENCE UNITS AND DEMONSTRATE TO THE OTHER MEMBERS THE KIND OF EFFECTIVE SCIENCE THAT NATURAL PHILOSOPHY CAN INFORM. IN CONTRAST, BEHAVIOROLOGISTS ARE ORGANIZING AN ENTIRELY INDEPENDENT DISCIPLINE FOR THE STUDY OF BEHAVIOR THAT CAN TAKE ITS PLACE AS ONE OF THE RECOGNIZED BASIC NATURAL SCIENCES.

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NOTE: This issue does not contain any TIBI online course syllabus. In some future issues, new syllabi or updates of previous syllabi will appear. (See the *Syllabus Directory* near the back of each issue.)—Ed.

Volume 13 Number 1 Contents Plan

Here are some of the featured items planned for the next issue (Spring 2010) of *Behaviorology Today*, although these plans may change:

- ✧ *Two Behavior Measurement Projects for Behaviorology Graduate Students*
(Lawrence E. Fraley)
- ✧ *Increasing Tact Control through... New Postcedent Terms as Added & Subtracted Reinforcers and Punishers*
(Stephen F. Ledoux).
- ✧ *Single Parenting: When It's All Up to You*
(Glenn I. Latham)
- ✧ An article or two from among those that may be in process from various guest authors. *When will YOUR article arrive?* (Staff writers can maintain the publication schedule with worthy contributions, but worthy articles from guest authors make even more valuable disciplinary literature contributions.)—Ed. ☺

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PROVIDE AT LEAST MINIMALLY PEER-REVIEWED ARTICLES AS WELL AS, ON OCCASION AND WITH EXPLICIT DESIGNATION, FULLY PEER-REVIEWED ARTICLES. THEY WRITE ON THE FULL RANGE OF DISCIPLINARY TOPICS INCLUDING HISTORICAL, PHILOSOPHICAL, CONCEPTUAL, EDUCATIONAL, EXPERIMENTAL, AND TECHNOLOGICAL (APPLIED) CONSIDERATIONS. PLEASE JOIN US—IF YOU HAVE NOT ALREADY DONE SO—AND SUPPORT BRINGING THE BENEFITS OF BEHAVIOROLOGY TO HUMANITY. (CONTRIBUTIONS TO TIBI OR TIBIA ARE TAX-DEDUCTIBLE.) ☺

Behaviorology in China: A Status Report

Stephen F. Ledoux

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[This paper developed as a response to the requests of some of the author's Chinese and Western colleagues who were interested in the professional experiences the author had during his teaching year (1990–1991) in China. A Chinese translation of this paper appeared in an earlier (2002) issue: *Behaviorology Today*, 5 (1), 37–44.—Ed.]

During the 1990–1991 academic year, I taught some English but mostly behaviorology courses in the People's Republic of China. I accompanied my spouse as part of a faculty exchange between her university, St. Lawrence University, and the Xi'an Foreign Languages University (XFLU) in Xi'an, Shaanxi. While there I held discussions, the chief source of information, with as many of the behavior science professionals as I could reach at different higher education institutions in Xi'an.

Upon my return many colleagues (both Western and Chinese) asked me to describe, *from my experience*, the status and directions of the natural science of behavior in China. Most of these colleagues, particularly those from China, requested that the description include the behaviorological context, a request with which I have tried to comply through references. Of course, "from my experience" means that, since preparing this report was not the point of my stay in China, I did not gather numerical data relevant to the expressed opinions and perceived trends mentioned herein. Perhaps those making future visits will collect appropriate data and report what more, or what else, those data tell us.

Circumstances (in some cases, the language barrier) kept the number of professionals I could contact small (fewer than ten). So I cannot guarantee that my comments or those of my sources represent the general views of China's behavior science professionals. But my sources were of the opinion that they did. They cited some interwoven factors to support that contention. (As the level of discussion did not involve data presentation, these factors are still speculative in nature.)

One such factor involves a culture-based propensity, unless the speaker has earned senior status, to qualify statements even when these have only a minimal chance of being wrong. For example, in casual conversation a junior faculty member is likely to say "*Perhaps* it has been

raining" (emphasis added) when the window panes are observed to be wet, while a senior faculty member would forego the qualifier. This propensity is combined with a similar hesitancy to speak up in the first place unless you are sure you are right. My sources attributed these to the relatively large amount of "perhaps" culturally-determined embarrassment (loss of "face") experienced when one is in error in a context with a high population density as is common in China. Confidence that one is right, and hence a greater willingness to speak up, along with a reduction in qualifiers, gradually accrues with experienced seniority. As a result, what those with senior status say is acted upon out of respect for the speaker's status. The probability of verifying the statement is often reduced accordingly; the speaker is presumed to be right.

My sources believed these related factors reflect the hierarchical nature of the organization of disciplines and institutions in China wherein senior members do most of the talking and junior members play more of a supporting role. The result is that Chinese professionals tend to qualify their answers to probing questions in inverse proportion to their academic and professional seniority. As seniority increases, the number of autoclitics (Skinner, 1957) decreases. For Chinese speakers, seniority, as opposed to variables implying statement accuracy, seems to exert more control over autoclitic emission than is common for Western speakers.

I gathered information I consider reliable under these circumstances because some of my sources were senior members of the behavior science disciplines. For example, one professional with whom I held revealing in-depth discussions holds seniority at least as great as that of the others, and enough to reduce qualifiers considerably. This source is Professor Fang Qiang. The entries on his business card provide some measure of his seniority. These include (a) Professor, Northwest Institute of Political Science and Law, Xi'an, Shaanxi, (b) Director, Committee on Legal Psychology, Xi'an Psychological Association, (c) Deputy Director, Committee on Criminal Remolding Psychology, Chinese Society of Science of Law, (d) Member of the Committee on Legal Psychology of the Chinese Psychological Association, and (e) Member of the Preparatory Committee on Psychology in Literature and Arts of the Chinese Psychological Association. Professor Fang did not have the opportunity to comment on everything. The comments he made, however, did confirm information from other sources when he and they covered the same topics.

The major points I discovered about behavior science in China are all interrelated. The most obvious point pertains to the nature of "psychology" in China, especially the recent historical problem of a break with some counterparts outside China, counterparts the Chinese consider important. This break left the Chinese discipline in

need of updating. After working on the update for ten years, the Chinese thought the task completed. They are discovering that it is not and that what is still missing is what some call behaviorology. However, for behaviorology to be adopted to finish the update, the other major points I discovered must be considered. These pertain to the nature of higher education in China with respect to (a) its extent, (b) its requirement for demonstrated applications from “new” disciplines (partly as a function of its structure), and (c) the resistance resulting from retaining comfortable even if outmoded opinions about behavior science (including opinions about its paradigm and its philosophy of science). Each major point will be addressed in turn, after a description of the relevant aspects of my teaching context that hold implications for understanding and acting on the question of behaviorology in China.

Specific Context and Developing Behaviorology

My teaching situation exemplified some of the variables affecting the development of behaviorology in China. Hence, this section includes more than the usual details.

XFLU hired me to teach in two departments, English and Graduate Studies. Most of the college graduates in English from XFLU become language teachers, more than 80%, the majority in middle schools (similar to US high schools), according to department personnel. So the English Department asked me to teach an undergraduate teaching methods course to their “fourth grade” students (i.e., seniors) in the second semester. They called this course “Behaviorology and Teaching.” Also, about 80% (by count) of the graduate students at XFLU *are* language teachers. So the Graduate Studies Department asked me to teach a graduate version of the teaching methods course at the same time. (I taught two sections due to the enrollment of other teachers as well as graduate students.) They called it “Behaviorology and Education.” The content of both courses derived mostly from the textbook *Behaviorology for Teachers* (J. Vargas, 1988).

Most XFLU seniors take a traditional teaching methods course taught in their native tongue. This course surveys specific practices for particular circumstances (e.g., how to do vocabulary drills with second-year, junior middle-school students), plus theories and philosophies from various educational perspectives. That course spends little time discussing scientific foundations of teaching and learning. The “Behaviorology and Teaching” course replaced the traditional course for undergraduate English majors and (like its graduate-level counterpart) covered scientific foundations as well as the applications of these in education.

The Graduate Studies Department also asked me to teach a behaviorology course on verbal behavior (vB) in the fall 1990 semester, the first semester I was there. They gave the course the name “Verbal Behavior and Language Study.” The purposes of the course were (a) to explore the behaviorological analysis of verbal behavior and (b) to examine the implications of this analysis for, and its applications to, the teaching of foreign languages. This department also offered a course called Psycholinguistics (only in the fall term of the academic year) which included coverage of Chomsky’s language theories. Only English-speaking students could take these courses because the texts were in English for both of them. Due to subsequent demand, the Graduate Studies Department asked me to offer the vB course again in the following spring term.

Some students took both the Psycholinguistics course and the vB course. The comments from both students and faculty colleagues about Chomsky’s theories are revealing. They told me that “Everyone in China who is involved in language training knows Chomsky’s theories but, since applying them to language training is so difficult, if not impossible, few people show much interest in them; they are just something you are ‘expected’ to know.”

When asked to teach these courses, especially the vB course, I expressed some concern: Starting with courses in advanced, specific application areas would sacrifice the more comprehensive understanding of fundamental principles and methodology that are necessary for skill development and successful work in applied areas. I further suggested that standard introductory courses would provide coverage of the main scientific principles and methods of behaviorology, preparing the way for advanced, applied courses, and that initially I should teach such an “Introduction to Behaviorology” course. But this suggestion received little attention, and I tried to find out why. The answer involves several interacting factors and helps show the complexity of some of the tasks facing those who would work to enable behaviorology to make its contributions to humanity’s world-wide culture.

The Nature of Psychology in China

The use of the word *psychology* to translate the entries on Professor Fang’s business card provides an initial insight into psychology and behaviorology in China. Professionals there use the word differently, to encompass far more, compared to the way professionals in Western countries use it. The Chinese use a word they translate as *psychology* to encompass the three sources they currently see for their discipline: traditional Chinese perspectives, the perspectives from the discipline in the Soviet Union (especially

the work originating with Pavlov on reflex/emotional, that is, respondent, behavior), and Western perspectives.

The Chinese have included three parts in the Western component of their discipline: psychoanalytic (e.g., Freud), mainstream (that is, cognitive/mentalistic; e.g., Maslow and Piaget), and behavioral (that is, the science of behavior originated by Skinner). The Chinese report a special preference for the Pavlovian and Skinnerian work due to the natural science approach and experimental methods these two share.

In part, this preference for Pavlov and Skinner may be due to a particular aspect of Chinese history. The Chinese culture has been less burdened than Western culture has been by philosophically idealist dualism, a dualism that pervades Western culture. So Chinese culture has suffered less from the unscientific separation of phenomena into the different realms of mental and physical (soul/body, spiritual/material, mind/reality) that results from philosophical dualism. Western psychology traditionally prefers the non-physical aspect. (The Chinese language, while it has a rich variety of terms for most of the Western usages of the term *mind*, actually lacks a direct translation of mind as Western psychologists use that term—as a dualistic, uncaused metaphysical cause. Instead, for that usage, Chinese generally uses a word that, less appropriately, translates back into English better as “brain.”) The combination of being less affected by the dualism problem plus China’s modern preference for philosophical materialism enables Chinese professionals interested in improving the human condition to achieve greater progress at a faster pace than their Western *psychology* colleagues. The extent to which China’s professionals make such progress depends on the extent to which they maintain their preference for philosophically materialist natural science when considering disciplines pertaining to human behavior. Progress also depends on maintaining an advanced level in the natural science of behavior; historical circumstances have, however, made this difficult.

The Break in Contact with the West, and the Quest to Update

The development of the Western components of the Chinese psychology/behavior science discipline has not been even. For thirty-odd years after the mid 1950s, Chinese psychologists were out of contact with the work, reports, and progress of their Western counterparts. Chinese psychologists spent the 1980s trying to rectify this situation. Their efforts to update the Western component of their discipline were many, including (a) short-term (one to three weeks) and longer-term (up to one year or more) personnel exchanges with their Western colleagues, (b) academic conferences both at home and abroad, (c) contact with current Western psychology journals and text-

books, and (d) Chinese students earning higher degrees (M.A. and Ph.D.) in top-rated psychology departments in the USA (e.g., Harvard). And they reported that they had believed that their efforts were virtually complete.

However, at the time of my visit, Chinese psychologists were coming to understand that their updating task was incomplete. They were seeing that their update had really been only of the psychoanalytic and mainstream components. Their update of the behavioral component had hardly begun because they did not realize that they were consulting sources that lacked the necessary information. The information they needed to complete their update has not resided in psychology or its literature since the 1960s. Increasingly in the 1950s, Western (American) psychology journal editors turned down behavioral studies partly because these studies lacked the technically required reports of statistical significance. In effect, those editors ignored the judgement (see Sidman, 1960 [1988]) that the *experimental* control methodology of behavioral research is scientifically more powerful than the *statistical* control methodology typically used in psychology. So behavioral researchers founded behavioral journals separate from the standard psychology journals and published their research in those behavior science journals as well as in their own behavior science textbooks. Their experimental methodology, with its emphasis on single subject designs, had produced, and continues to produce, discoveries of principles (see, for example, Fraley, 1996; Michael, 1982; Sidman, 1986a, 1986b; Whaley & Malott, 1971) and advances in practices and applications (see, for example, Beach, 1991; Christophersen, 1988; Clark, 1996; Cooper, Heron, & Heward, 1987; Epstein, 1981; Fraley, 1980; Johnson & Layng, 1992; Latham, 1994; Ledoux, 1982; Schlinger & Blakely, 1987; Sidman, 1989, 1994; Sidman, Wynne, Maguire, & Barnes, 1989; J. Vargas, 1988; West & Hamerlynck, 1992). These are all relevant to solving human problems and are related to further advances in extended analyses of complex human behavior (also see, for example, Cautela, 1994; Cautela & Ishaq, 1996; Fraley, 1988; Krapfl & Vargas, 1977; Skinner, 1957; Ulman, 1991; Vargas, 1996; Vargas & Fraley, 1976).

At the same time, in that decade of the 1960s, other developments were affecting the status of Western psychology. The so-called cognitive revolution, along with various economic and political contingencies (extensively analyzed in Fraley & Ledoux, 1997), gave rise to non-behavioral psychologists’ increasing satisfaction with psychology’s *transformation* paradigm. That paradigm is incommensurable with the *selection* paradigm of a natural science of behavior like behaviorology (see Vargas, 1991, for a thorough comparison of these paradigms; also see Fraley & Ledoux, 1997; Ledoux, 1997a). Psychology’s transformation paradigm is also incompatible with the philosophy of science called radical behaviorism which

informs behaviorology (for basics, see Ledoux, 1997b; for details, see Chiesa, 1994). Most of these developments happened after Chinese behavior scientists had lost contact with Western events.

As of this writing Chinese behavior scientists are realizing that they have been operating with a behavioral component that is over thirty years out of date. (They are also realizing that any dissatisfaction they may have had with the behavioral approach is as likely due to that factor as to any other.) By completing the update of this information, that is, by becoming familiar with behaviorology, Chinese professionals may decide to do some extensive re-evaluation of the relevance of the various components of their discipline, and perhaps even begin to shed the idealism-based parts.

Moves in this direction are already developing. Even the term Chinese professionals use for their behavioral component is noteworthy. That term is *Xingwei Xue* which the Chinese translate as *analysis of behavior*, *behaviorology*, *behavior analysis*, *behavior science*, or *science of behavior*. (Unfortunately, this means that the Chinese language has no current term that connotes what English connotes with the term behaviorology: a separate and independent natural science discipline.)

Chinese professionals also expressed dissatisfaction with what they describe as a lack of useful substance in the psychoanalytic and mainstream psychology components which they have already updated. They find very little that can be put to use to help deal with some of the practical issues that they face in their culture and society. Those Chinese scholars introduced to the wide range of research and applications reported in well-known *behavioral* journals (e.g., *Journal of the Experimental Analysis of Behavior*, *Journal of Applied Behavior Analysis*, *The Behavior Analyst*, *The Analysis of Verbal Behavior*, *Journal of Behavioral Education*, *Behaviorology*, and *Behaviorological Commentaries/The International Behaviorologist*) express ample interest in behaviorology. They know that what they have in China is out of date, and they want to examine and thoroughly familiarize themselves with, and expand, behaviorological science and technology.

In summary, since the late 1950s, reports of virtually all the numerous, significant advances in research and applications in the science of behavior have increasingly appeared in journals and textbooks independent of the in-house texts and journals of organized psychology. So these developments have not appeared in the traditional *psychology* sources the Chinese consulted for their update. While Western psychologists have, since the 1960s, often claimed "Behaviorism is dead" (see Wyatt, Hawkins, & Davis, 1986), in self-contradiction they have also continued to claim it as their own. Yet all that time their version of behavior science *within* psychology was getting more and more obsolete. This obsolete version was all that was

available to Chinese scholars for their update *from within Western psychology*. The information needed to complete the update is available in the literature of behaviorological science. For, as psychology's information became obsolete, the science in the West that Chinese behavior scientists have seen as the behavioral component of their discipline was becoming the separate, independent discipline of behaviorology, with its own disciplinary literature (see Fraley & Ledoux, 1997; Ledoux, 1997a; Skinner, 1989, 1993).

Developing Behaviorology: The Challenge for China's Higher Education System

The Extent of Available Training Opportunities

Chinese scholars face certain challenges in developing behaviorology in their country. One concerns the small number of training opportunities available in China's education system, at least as of 1990. Even though China's population is well over one billion, the Chinese report that they have few higher education institutions in China, relative to the population to be served (the historical reasons for this situation go beyond the scope of this paper). Only a few of those institutions offer training in Chinese psychology (behavior science). Even then, "Education Science" is the name of the discipline in which students earn degrees.

The following institutions are reported to be the only ones offering that training at this time: Those institutions that offer it at the B.A. degree level are: Beijing University, Beijing Teacher's College, and East China Teacher's College in Shanghai. Training at the M.A. degree level is offered by the Shaanxi Teacher's University in Xi'an, Hangzhou University, South West Teacher's College in Chong Qing, and the Northeast Teacher's University in Lan Zhou. Doctoral level training is offered at Beijing University, Beijing Teacher's College, and the Psychological Institute of the Chinese Academy of Social Science in Beijing. (A few others may offer this training, such as Beijing Normal University, but the specifics of their programs were unavailable.)

The Requirement: Demonstrate Useful Applications First

Another challenge rooted in the circumstances of Chinese higher education is the apparent requirement that unfamiliar approaches (those that are "new" to China, in the sense of not currently being taught) demonstrate useful applications before receiving academic recognition, support, training in basics, and expansion. The difficulty here is that some of the most useful be-

behaviorological applications are complex ones that *require* extensive attention to basics in the first place. How can this dilemma be resolved? Perhaps, by updating the old, still taught version of behavior science to behaviorology, this dilemma will simply be avoided. But that presents separate challenges, described in a later section, regarding the comfort of familiar, though outmoded, opinions.

The characteristics of my academic setting (described earlier) are typical results of the preference for applications first. These characteristics were: (a) the desire to have a behaviorology and education course taught that emphasized *applying* behaviorology to teaching methods and the high demand for this course, (b) the desire to have a vb course taught that emphasized *application* to language training and the high demand for and subsequent repetition of the vb course, (c) the low interest in Chomsky's theories "because they are not so useful/applicable," and (d) the current lack of interest in having *basic* behaviorology courses taught that introduce the discipline in depth rather than just emphasize a particular application area.

The effect of the education system's structure. The structure of Chinese higher education may itself be partly responsible for the "demonstrate useful applications first" condition. This structure is based on a need for applied specialists, the demand for whom is continually greater than the supply available from China's limited number of institutions. Most higher education institutions in China have an applied mission in a particular area (e.g., a petroleum institute, an architectural-engineering institute, or a foreign language university—the American concept of "general education" is not widely known). Such institutions often do not comprehensively teach (i.e., as "majors" themselves) the disciplines that inform their respective areas of application. Only a few higher education institutions in China have a mission broad enough to allow them to teach disciplines comprehensively. Some can do so for only one or a few disciplines (e.g., a music conservatory or a teacher's university). The few, more comprehensive universities can do so for many disciplines, usually providing training through graduate degrees. (The latter institutions often train the faculty for other institutions.)

Those institutions with applied missions are always sensitive to the possibility that other, perhaps "new," disciplines may provide contributions that can increase the effectiveness of personnel working in the applied area of the institution. When they find such a discipline, they "try it out" and the amount of success it shows generates commensurate demand. If a discipline "tried out" this way shows enough success, and generates enough demand, then those institutions with broader missions may begin teaching it comprehensively.

For example, if those who took the applied behaviorology classes at XFLU are more effective as teachers of

foreign languages, then other teachers of languages and of other subjects may become interested in such courses. Other institutions may then start teaching similar courses, such as teacher's universities. In time, the major universities would begin offering comprehensive training in behaviorology, in part simply to supply properly trained faculty to the applied institutions.

Such a scenario began even while I taught the first vb course. The discussions about offering the behaviorology and education/teaching courses, and the vb course repeat, began halfway through that first term as the usefulness of behaviorology's analyses became apparent. Word of this usefulness quickly reached the Shaanxi Teacher's University (STU), next door to XFLU. That institution then asked XFLU to allow me to teach a section of "Behaviorology and Education" to its students and teachers in the spring term. (STU had to withdraw the request for financial reasons as the compensation XFLU requested, an amount in addition to my stipend for that section but typical in such situations, was more than STU could afford.)

But all this presumes that students of applied courses will avoid the danger inherent in the "demonstrate useful applications first" requirement. This danger seems to cause less concern than it deserves. The danger of the applications-only approach, of course, is that students who take only one or two applied-focus courses will not have acquired, from those courses, repertoires—in the principles, methods, and skills of the science—sufficiently advanced to meet the challenges that they will likely face.

Advanced repertoires are necessary for the long-term effective application of the science. Students lacking these repertoires are likely to encounter complexities and problems that they cannot adequately analyze or solve. They should trace these difficulties to their inadequate preparation in the repertoires of the discipline. But that same lack of preparation may mislead them to suspect, instead, that the discipline itself is inadequate and so not worthy of further study. That conclusion, shared generally, could substantially reduce the chance for behaviorology to receive the attention that would generate full training programs capable of leading to comprehensive contributions.

Establishing behaviorology training programs in the near future in China that initially cover the full range of disciplinary breadth and depth may be unrealistic. Without demonstrating its applications first, behaviorology has little chance of recognition there (although the multitude of published applied research studies may be demonstration enough). A first step may be (a) to teach only the basic skills of various applications along with the basic principles that inform those skills *at that level only*, while (b) at the same time continually pointing out, especially by examples from the applied literature, how more sophisticated skills can be learned and effectively applied when the more advanced principles and methods of the

science are studied. Students taught this way may indeed blame their minimal training when they face problems that they cannot solve. They may then seek further training and thereby create the demand for more comprehensive training programs. (See Ledoux, 1997c, for a discussion of behaviorology curricula.)

Resistance from Outmoded Opinion

Another aspect of China's higher education that affects China's development of behaviorology is partly a function of the seniority-autocritics relation described earlier. This aspect concerns the amount of the science that is already known and the outmoded opinions about that knowledge that senior personnel may hold.

Repeatedly, Chinese colleagues pointed out that Skinner's work was followed through the 1940s and taught through the 1950s. But in the thirty years since then, little (including new advances) was available or taught. (Many disciplines faced this type of problem as a result of the derailing of the positive aspects of the Cultural Revolution by the Gang of Four.) Today, the behavior science being taught is mostly the knowledge available in the 1950s.

Chinese professionals' opinions of the "Skinnerian behaviorism" that they know from the 1950s too often hold that the principles of the science seem inadequate to account for the complexities of human behavior. The advances in the years since then, however, provide justification to change that opinion. This behavior science has proven as capable as, if not more so than, other disciplines in accounting for the complexities of human behavior. *Due to the lack of access to these advances*, however, many of China's behavior scientists have thought the science had stalled. Consequently, the low opinion of it went unchallenged. In a similar way, much of the credence Chinese colleagues have given to psychoanalysis and the cognitive/mentalist mainstream may stem from the same factor. They have simply not had access to a suitable, more applicable, scientific, parsimonious, effective, and comprehensive alternative to those approaches. They are now appreciating that such an alternative is available.

Contributory Action

As a citizen of this planet, every human being has a stake in the successful outcome of efforts to bring the benefits of the natural science of behavior, behaviorology, to all the world's peoples, including the people of so populous a country as China. People who wish to contribute to such efforts are unlikely to have their contributions refused.

Western behavior scientists can make valuable contributions. Reestablishing contact with Chinese colleagues

and engaging in personnel exchanges and conferences between countries are good examples. These are similar to the procedures already in use for updating and maintaining contact. But they must now occur to support the efforts of China's scholars to develop *behaviorological* science. (See Latham, 1997, for an important, explicit, practical, and justified suggestion along these lines.)

[Latham suggested that behavior science professionals in the USA arrange for interested Chinese professionals to visit the USA to study the natural science of behavior, and even to host them during their visit. In the years since he made this suggestion, TIBI was able to take advantage of certain windows of opportunity and thus was able, separately, to host two visiting Chinese scholars. Both have since returned home after having earned TIBI's *Professional Studies in Behaviorology Certificate*.—Ed.]

Other types of contributions by Western behavior scientists may be especially valuable in supporting these efforts. For starters, transfers of resources (e.g., behavioral textbooks and sets of behavioral journals) to departments providing behavior science training would help improve training contexts immensely, with all the subsequent benefits to the quantity and quality of behavioral research and applications.

Conclusion

The vast majority of Western psychologists lay claim to the level of behavior science available in the 1950s. They also often insist that behavior science is "dead" (Wyatt, *et al.*, 1986). Due to the advances outside psychology since the 1950s, the former is irrelevant. The latter is correct, but only *within* psychology; again, advances have been made and reported mostly outside psychology, in the natural science discipline that has come to be called behaviorology.

The advances in behaviorological science since the 1960s show its principles accounting for complex human behavior, and further advances are to be expected (for example, see Ledoux, 1997d, 1997e). If behaviorology in China is to become a part of, and inform, the cultural-practice repertoire of the fifth of the world's population living in that country, then the resources of the whole discipline (with the advances since the 1960s, including the paradigm and other developments leading to separate disciplines) must be more thoroughly introduced to the professionals concerned with behavior in China for extension within that cultural context. For that introduction to be successful (with behaviorology being added to university curricula, leading to higher degrees and China's own laboratories and research in the science), the outdated opinions about behaviorological science must be modernized, and the "applications first" dilemma must be addressed and resolved. Expansion of training opportunities will follow,

along with improvements in the behavior- and cultural practice-related services for the people of China and beyond. Material and intellectual contributions are appropriate actions in support of our Chinese colleagues in their efforts to meet these challenges. ☺

Endnotes

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The author thanks those Chinese and Western colleagues who provided many helpful comments on various drafts of this material. Address correspondence regarding this paper to:

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References

- Beach, S. (1991). Behaviorology and space settlement. *CONTACT Newsletter*, 2 (2), 2-3.
- Cautela, J.R. (1994). General level of reinforcement II: Further elaborations. *Behaviorology*, 2 (1), 1-16.
- Cautela, J.R. & Ishaq, W. (Eds.). (1996). *Contemporary Issues in Behavior Therapy: Improving the Human Condition*. New York: Plenum.
- Chiesa, M. (1994). *Radical Behaviorism: The Philosophy and the Science*. Boston, MA: Authors cooperative.
- Christophersen, E.R. (1988). *Little People (Third Edition)*. Kansas City, MO: Westport Publishers.
- Clark, L. (1996). *SOS! Help for Parents (Second Edition)*. Bowling Green, KY: Parents Press. (Also available in Chinese.)
- Cooper, J.O., Heron, T.E., & Heward, W.I. (1987). *Applied Behavior Analysis*. New York: Macmillan.
- Epstein, R. (1981). Of pigeons and people: A preliminary look at the Columban simulation project. *The Behavior Analyst*, 4, 43-55.
- Fraley, L.E. (Contributing Editor). (1980). *Behavioral Analyses of Issues in Higher Education*. Reedsville, WV: Society for the Behavioral Analysis of Culture.
- Fraley, L.E. (1988). Covert mini-courts within judicial and law enforcement operations. *Behavior Analysis and Social Action*, 6 (2), 2-14.
- Fraley, L.E. (1996). *General Behaviorology* (fall edition). Morgantown, WV: Lawrence E. Fraley. In press, *General Behaviorology: The Natural Science of Human Behavior*. Canton, NY: ABCs.
- Fraley, L.E. & Ledoux, S.F. (1997/2002) Origins, status, and mission of behaviorology. In S.F. Ledoux. (2002). *Origins and Components of Behaviorology—Second Edition* (pp. 33-169). Canton, NY: ABCs. Reprinted (2006-2008) in five parts in *Behaviorology Today*: Chs. 1 & 2: 9 (2), 13-32. Ch. 3: 10 (1), 15-25. Ch. 4: 10 (2), 9-33. Ch. 5: 11 (1), 3-30. Chs. 6 & 7: 11 (2), 3-17.
- Johnson, K.R. & Layng, T.V.J. (1992). Breaking the structuralist barrier: Literacy and numeracy with fluency. *American Psychologist*, 47 (11), 1475-1490.
- Krapfl, J.E. & Vargas, E.A. (Eds.). (1977). *Behaviorism and Ethics*. Kalamazoo, MI: Behaviordelia.
- Latham, G.I. (1994). *The Power of Positive Parenting: A Wonderful Way to Raise Children*. Logan, UT: P and T.
- Latham, G.I. (1997/2002). China through the eyes of a behaviorologist. In S.F. Ledoux. (2002). *Origins and Components of Behaviorology—Second Edition* (pp. 297-302). Canton, NY: ABCs. Reprinted (2002) in *Behaviorology Today*, 5 (1), 17-20.
- Ledoux, S.F. (1982). *Control of Simultaneously Reinforceable Concurrent Human Operants by a Multiple Reinforcer-Source Procedure*. Doctoral dissertation, Western Michigan University, Kalamazoo. Printed, with extensive revisions, as "Multiple selectors in the control of simultaneously emittable responses" in (2002) S.F. Ledoux. *Origins and Components of Behaviorology—Second Edition* (pp. 205-241). Canton, NY: ABCs.
- Ledoux, S.F. (1997a/2002). An introduction to the origins, status, and mission of behaviorology: An established science with developed applications and a new name. In S.F. Ledoux. (2002). *Origins and Components of Behaviorology—Second Edition* (pp. 3-24). Canton, NY: ABCs. Reprinted (2004) in *Behaviorology Today*, 7 (1), 27-41.
- Ledoux, S.F. (1997b/2002). An introduction to the philosophy called radical behaviorism. In S.F. Ledoux. (2002). *Origins and Components of Behaviorology—Second Edition* (pp. 25-32). Canton, NY: ABCs. Reprinted (2004) in *Behaviorology Today*, 7 (2), 37-41.
- Ledoux, S.F. (1997c/2002). Behaviorology curricula in higher education. In S.F. Ledoux. (2002). *Origins and Components of Behaviorology—Second Edition* (pp. 173-186). Canton, NY: ABCs. Reprinted (2009) in *Behaviorology Today*, 12 (1), 16-25.

- Ledoux, S.F. (1997d/2002). Increasing tact control and student comprehension through such new postcedent terms as added and subtracted reinforcers and punishers. In S.F. Ledoux. (2002). *Origins and Components of Behaviorology—Second Edition* (pp. 199–204). Canton, NY: ABCs.
- Ledoux, S.F. (1997e/2002). Successful smoking control as an example of a comprehensive behaviorological therapy. In S.F. Ledoux. (2002). *Origins and Components of Behaviorology—Second Edition* (pp. 243–258). Canton, NY: ABCs.
- Michael, J.L. (1982). Distinguishing between discriminative and motivational functions of stimuli. *Journal of the Experimental Analysis of Behavior*, 37, 149–155.
- Schlinger, H. & Blakely, E. (1987). Function-altering effects of contingency-specifying stimuli. *The Behavior Analyst*, 10, 41–45.
- Sidman, M. (1960). *Tactics of Scientific Research*. New York: Basic Books. Reprinted, 1988, Boston, MA: Authors Cooperative.
- Sidman, M. (1986a). Functional analysis of emergent verbal classes. In T. Thompson & M. Zeiler (Eds.). *Analysis and Integration of Behavioral Units* (pp. 213–245). Hillsdale, NJ: Erlbaum.
- Sidman, M. (1986b). The measurement of behavioral development. In N.A. Krasnegor, D.B. Gray, & T. Thompson (Eds.). *Developmental Behavioral Pharmacology* (pp. 43–52). Hillsdale, NJ: Erlbaum.
- Sidman, M. (1989). *Coercion and its Fallout*. Boston, MA: Authors Cooperative.
- Sidman, M. (1994). *Equivalence Relations and Behavior: A Research Story*. Boston, MA: Authors Cooperative.
- Sidman, M., Wynne, C.K., Maguire, R.W., & Barnes, T. (1989). Functional classes and equivalence relations. *Journal of the Experimental Analysis of Behavior*, 52, 261–274.
- Skinner, B.F. (1957). *Verbal Behavior*. New York: Appleton-Century-Crofts. Reprinted, 1992, Cambridge, MA: The B.F. Skinner Foundation.
- Skinner, B.F. (1989, May). A world of our own. Major address presented at the fifteenth annual convention of the Association for Behavior Analysis, Milwaukee, WI.
- Skinner, B.F. (1993). A world of our own. *Behaviorology*, 1 (1), 3–5.
- Ulman, J.D. (1991). Toward a synthesis of Marx and Skinner. *Behavior and Social Issues*, 1 (1), 57–70.
- Vargas, E.A. (1991). Behaviorology: Its paradigm. In W. Ishaq (Ed.). *Human Behavior in Today's World* (pp. 139–147). New York: Praeger.
- Vargas, E.A. (1996). A university for the twenty-first century. In J.R. Cautela & W. Ishaq (Eds.). *Contemporary Issues in Behavior Therapy: Improving the Human Condition* (pp. 159–188). New York: Plenum.
- Vargas, E.A. & Fraley, L.E. (1976). Progress and structure: Reorganizing the university for instructional technology. *Instructional Science*, 5, 303–324.
- Vargas, J.S. (1988). *Behaviorology for Teachers*. Morgantown, WV: L.E. Fraley.
- West, R.P. & Hamerlynck, L.A. (Eds.). (1992). *Designs for Excellence in Education: The Legacy of B.F. Skinner (Limited Edition)*. Longmont, CO: Sopris West.
- Whaley, D.L. & Malott, R.W. (1971). *Elementary Principles of Behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Wyatt, W.J., Hawkins, R.P., & Davis, P. (1986). Behaviorism: Are reports of its death exaggerated? *The Behavior Analyst*, 9, 101–105.✻



The Religious Psychology Student in a Behaviorology Course

Lawrence E. Fraley

Professor of Behaviorology (retired)

Introduction

As a professor of behaviorology I taught a comprehensive general behaviorology course to beginning graduate students, many of whom were educational psychology majors. I often encountered the kind of deeply religious students who are attracted to disciplinary mixes like psychology that tolerate metaphysical assumptions within their paradigmatic conceptual frameworks. Such students arrived in my course prepared to rely, as they often did in their psychology courses, on their repertoires in metaphysics. Before long in my behaviorology course they found themselves confronting the incompatibility of the religious/metaphysical paradigm and the natural science paradigm of behaviorology. When such students submitted papers laced with metaphysical ideas where a science student would have been expected to provide behaviorological analyses, I would respond to those students with letters of which the following is a typical example.

§

Your paper, and the class discussion that followed its presentation, raised some complex issues about training for the natural sciences. It also presented me with a dilemma of sorts. Let me explain.

This is a basic course in a natural science and in the behaviorological engineering that derives from it. It is not a survey course *about* the discipline of behaviorology; it is a course *in* behaviorology. The difference is important. This training is provided because a person seeking a doctorate in a behavior-related discipline such as education is expected to operate professionally *as* a behavioral engineer. In short, in entering into a program in education, you are not merely here to gain some insight into how behaviorologists think and practice (in the sense that you would then be prepared merely to *describe* those phenomena). Rather, you are here to be trained in how to operate that way yourself—in the same sense that a person planning a career in geology would take geology courses

to learn how to think and act like a geologist. The distinction is illustrated in comparisons between (a) survey courses taught to non-majors to *familiarize* them with a field or discipline and (b) training courses taken by majors to render them capable of operating as practitioners *of* their disciplines.

As a student who comes to higher education with concepts of human behavior based on traditional religious assumptions and principles, you are finding, as have students down through recent centuries, that religion and natural science do not provide compatible ways of thinking. There is a very real basis for the long-standing tension between their advocates. An extensive body of literature elaborates on the antithetical nature of those contrasting paradigms, but even here in our course you find yourself confronting some of the implications of those differences.

This being the United States of America, one's personal right to believe *anything* is constitutionally protected. But in a natural science course designed to prepare students to operate as engineers *on the basis of* that basic natural science, the student cannot validly receive academic credit for substituting religious verbal behavior for scientific verbal behavior in the conceptual analyses that constitute the natural science subject matter. To cite one classic example that has arisen from time to time, a student whose religious training has predisposed the person to believe that the earth was spontaneously created by metaphysical forces only a few thousand years ago could not substitute a declaration to that effect for the corresponding alternative training products required in the formal study of paleontology and stratigraphy—and then, demand grades of A in those geology courses on the grounds that First Amendment rights permit that kind of substitution without adverse consequence.

In your paper, feelings and personal autonomy are implicitly denoted as properties of what seems to be an autonomous self. I assume from what you have written in this paper and said in class that this self-entity is the familiar human spirit that is posited, within the Judean-Christian religions, (a) to inhabit the body, (b) in some versions to account for its life function, and (c) to serve as the somewhat spontaneous origin of much of its behavior. You have rather explicitly characterized "feelings" as manifestations of that sort of ethereal entity—perhaps as a kind of indicator of its presence. You assign to feelings the role of guide by which the self-entity determines the kind of directions that it should give to the body. In some versions, conversely, the will of the spirit is manifested in the form of feelings that, in turn, somehow guide the body. And you have described verbal phenomena such as choosing and decision-making as further manifestations of that self-spirit. Such views, I believe, represent what is taught under the umbrella of the reli-

gious agencies from which you report having received extensive training throughout your lifetime.

The problem here is that within the natural science of behaviorology such events as feelings are explained as the inevitable respondent products of specific behavioral processes that occur both naturally or by engineering design. Given that that is demonstrably true, it is redundant to insist that feelings are of metaphysical origin. While they are entirely real, feelings, like all real events, are *part of the natural behavior-controlling environment*. That they themselves are behavioral effects, or that they occur *within* the body are irrelevant, because behavior can be controlled functionally by any kind of real events occurring on either side of the skin—as when, for example, one says truthfully “I’m feeling grief about the death of my goldfish,” a remark occurring under partial stimulus control of a feeling.

Already in this introductory course, we have studied the relevant basic principles and the engineering strategies by which any *one* ...can be made to feel any *way* ...about any *thing*. There is nothing mysterious about feelings or about the circumstances that give rise to them. Neither of us, as far as I know, is a deity. Yet, as an ordinary behavioral engineer, I can (at least in theory) arrange for anybody to have any feeling with respect to anything. And as a student of behaviorology who is acquiring this science and engineering, so presumably can you. From an objective behaviorological scientific perspective, it is clearly redundant to say that one’s feelings are manifestations of a metaphysical self that is making known its intentions as to how it’s host’s body should behave. Rather, one’s feelings are certain physiological effects that one’s prior conditioning has left one preconfigured to experience inevitably upon later encounters with certain kinds of events. And in many cases the behavioral engineers with whom one has previously interacted have arranged that kind of preconfiguring deliberately—a role often filled by parents, relatives, friends, teachers, or religious leaders. The affected person would therefore be better served by asking *who* performed that behavior engineering and *why* it was done—and how well he or she, as its product, is *now* being served by that endowed capacity for pre-engineered emotional respondents.

When, instead, you accept the traditional religious/psychological position on feelings and substitute that kind of analysis for the kind of analysis of feelings taught within the behaviorology discipline, it *is* good religion, and it is typically *acceptable* in psychology insofar as psychology students are seldom if ever disabused of such notions and are sometimes taught a secular version of that same thing. But it is *not* good natural science.

Or consider another example: You assert or imply the autonomy of an indwelling human presence—the semi-autonomous decision-making self. But you offer as evi-

dence of both its presence and function a class of operant verbal behavior—specifically that involved in what you call personal choosing or decision-making. You seem to be suggesting (as I understand your position) that a person’s announcement of a decision is a voice from the autonomous self-spirit within. You mentioned that you construed reasoning and problem solving to differentiate man from other animals—a long-standing concept generally featured in religious training. However, from a biological natural-science perspective, while human beings have a genetically structured body that facilitates verbal behavior better than the body of any other known species, the bodies of some other species permit rudimentary or incipient forms of such verbal operant behavior, and no strict demarcation on that characteristic can be demonstrated for the human species.

Here, with respect to the paper that you have submitted, a problem arises when, in this behaviorology course, which exists to train students to perform behaviorological analyses, you substitute the kinds of superstitiously informed analyses that are discussed in this letter for the behaviorological analyses of the behavior-related subject matter. In a natural science of behavior, the phenomena that we call *decision-making* are behavioral events, mostly of the verbal kind. So far as behaviorological scientists have reason to know, those events consist *entirely* of behaviors, and no other assumptions seem necessary to explain them. As with all behaviors, they are functionally controlled, and in each case those functional relations are theoretically demonstrable. In the case of verbal operants involved in decision-making and problem-solving, the antecedent controls often consist of other verbal events. The causal chain can be traced, as always, not to some mysterious internal locus of metaphysical intervention, but to other domains of the behavior-controlling environment, including, subsequently, those outside the body. The verbal operants involved in “choosing” can be conditioned and shaped by processes that are made to occur through behaviorological engineering. Our present course is a first course in the curriculum devoted to how, exactly, that sort of thing is done.

Thus, within the natural science of behaviorology those verbal phenomena that you describe as “making a personal choice” cannot validly be withdrawn from the *scientific* analysis and reserved as evidence for a metaphysical self. To engage in such a departure from the scientific paradigm (as was also the case with your treatment of feelings) you must simply ignore big chunks of our behaviorological subject matter. Again, doing so represents good religious thought. And from all that I have seen, it is also widely acceptable (or widely tolerated) in the often non-natural, semi-scientific, semi-scientistic disciplinary mix called *psychology*. But it does not represent acceptable natural science—in particular, behaviorology, which

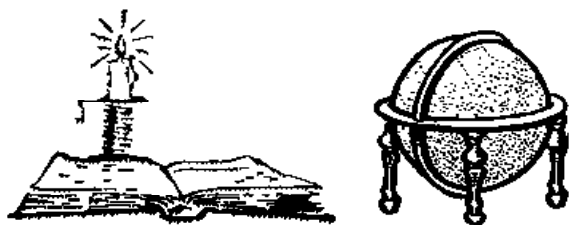
features an entirely different paradigmatic perspective on those kinds of events.

I would not want to penalize anyone for using an occasion such as this to explore and develop his or her own concepts on the theme topic. And you are entitled to your beliefs. However, in this case, as a basic science teacher, I have specified that this particular training exercise, occurring as it does *as part of a basic science course*, must reflect objective *scientific* thinking about the issues. At issue with respect to your involvement in this course is whether or not *you can do that*. That you may have become convinced that natural-scientific thought should not happen with respect to human behavior remains irrelevant to your involvement in this course.

Your course syllabus provided samples of the grading form for this course activity, which lists “scientific merit of paper” as one of the important criteria by which such presentations are to be evaluated. Accordingly, I have deducted some credit in the category of “scientific merit”, because your good religion (and apparently acceptable psychology) is not good natural science—in particular, in this case, not good behaviorology. Insofar as your paper did contain some valid scientific points, the deduction in that category was only three of the six possible points, which resulted in an overall grade of 85% on this exercise. The loss of that 15% on this one activity amounts to a decrease in your total course credit of six-tenths of one percent. I don’t want to belabor the trivial, but for the price of a miniscule portion of course credit, you get a first-hand introduction to a complex and little understood intracultural conflict—a real bargain as the education dollar stretches today!✻

Endnotes

An earlier version of this piece appeared in the Winter 1992 issue of *Behaviorological Commentaries* (Serial No. 2, pp. 18–21).—Ed.✻



10 Steps to Self-Esteem

Glenn I. Latham

Utah State University Logan

[This is the second article in the first issue (Volume 1, Number 1) of Glenn Latham’s *Parenting Prescriptions* magazine. As one of the four Founders of TIBI and a *Behaviorology Today* staff writer, Dr. Latham’s work has appeared in the pages of this journal before. We are thankful to have received permission to occasionally reprint one of his helpful, science-based practical articles, like this one, for parents and other child caregivers. (Readers can obtain all four issues of *Parenting Prescriptions* magazine through the “Products” section of www.parentrx.com which is the web site that Glenn established as an information resource.)—Ed.]

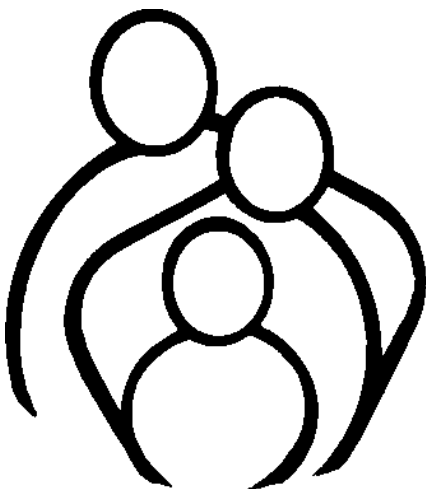
Among the many good things parents want for their children, a high regard for self is at or near the top. Parents frequently ask, “What can we do to make our children feel good about themselves?” Parents then express concern about children who mope around the house, complaining about their inadequacies, feeling afraid to try new things, and despairing that they have no friends.

To some degree, this kind of behavior is to be expected. Occasionally, we all feel unattractive and have self-doubts. As parents, however, we need to be careful that we don’t inadvertently contribute to our children’s sense of low self-esteem by giving it the wrong kind of attention or by actually saying or doing things that make our children wonder about their abilities or worth.

To help build your children’s self-esteem, you should regularly do the following:

1. **Do and say things that let your children know that you feel good about yourself.** Smile a lot, be happy, and laugh. Children need a model of what self-esteem looks like and sounds like. You need to show your children that you believe in yourself.
2. **Do and say things to your children that show you highly regard them and their abilities.** In fact, look for opportunities to build your children’s self-esteem. To remind you to say nice things to your children, put a plant or a picture out of place. Every time you see this object out of place, you will remember to say something nice to your children. You should also show your children that you respect their opinions. Ask your children for their opinion and then try to implement their suggestions.

3. **Set reasonable standards for your children's behavior.** Appropriately acknowledge when your children accomplish these standards. By doing this, you establish a healthy model of self-esteem.
4. **Continue to compliment your children even if they do not seem to appreciate what you say.** Although your children may not thank you for complimenting them, you must continue to notice and comment on their good behavior. A cold, stormy look can hide a child's warmth on the inside.
5. **Never!, I repeat, never! put your child down or use sarcasm.** Do not indulge in humor at the expense of your children. Although you may think your children understand that you are kidding, they may believe that you secretly mean the things that you are saying.
6. **When children say disparaging, uncomplimentary things about themselves, acknowledge those feelings with empathy and love, but press for a solution.** Do not try to convince children that they really don't feel a certain way or that they are just having a bad day. To children, these feelings are as real as life. Use empathy and understanding and offer to help your children.
Avoid giving quick-fix advice; help your children find real solutions. The wisdom of age typically doesn't cut it with children. If you are unable to help, seek help from professionals, clergy, or knowledgeable friends or family.
7. **Put failure into perspective.** Failure is a part of life. Often we can turn an event that seems like a failure into a success simply by changing the way we look at the event. For example, a child attempts a task and fails. Rather than focusing on the failure, you can say, "What can you do to make sure you succeed next time?"
8. **Teach your children private speech.** Private speech is consciously saying esteem-building things to yourself, particularly at times of risk. For example, suppose a friend says something harsh or negative to your child.



9. **Help your children learn to assess cause and effect.** Assessing actual causes helps your children explain, in a specific way, why something happened and helps them avoid the tendency to engage in generalizations. For example, rather than assuming that "I failed the test because I am stupid," children should realize that the cause is very specific: "I failed the test because I wasn't as prepared as I should have been."
10. **Teach self-control and self-reinforcement.** You should teach children to engage in alternative behaviors when events disappoint them or make them feel depressed. For example, if a child gets teased while she is playing with friends, she could smile, walk away, and count to ten. Then, the child could find someone else to play with.

After choosing an alternative behavior, children should verbally reinforce themselves for behaving well. In the example above, the child could say to herself, "Good job. I knew I could do that." ☺

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Syllabus Directory

Each issue of *Behaviorology Today* contains three lists. These lists show where to find only the most up-to-date versions (in title and content) of TIBI's course syllabi. The first list shows syllabi located in the current issue or past issues. The second list shows the schedule (which may change) of syllabi to appear in some future issues. The third list repeats the syllabi locations (actual or planned) but by course number rather than by issue.

Up-To-Date Syllabi in Current or Past Issues

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

Syllabi Planned for Future Issues

- Volume ?, Number ? (Spring/Fall 20??): BEHG 250:
Educational Behaviorology for Education Consumers.
- Volume ?, Number ? (Spring/Fall 20??): BEHG 340:
Educational Behaviorology for Education Providers.
- Volume ?, Number ? (Spring/Fall 20??): BEHG 405:
Introduction to Instructional Practices in Educational Behaviorology.

- Volume ?, Number ? (Spring/Fall 20??): BEHG 455:
Advanced Instructional Practices in Educational Behaviorology.
- Volume ?, Number ? (Spring/Fall 20??): BEHG 445:
Advanced Experimental Behaviorology.

Syllabi Locations Listed by Course Number

- BEHG 101: *Introduction to Behaviorology I:*
Volume 7, Number 2 (Fall 2004).
- BEHG 102: *Introduction to Behaviorology II:*
Volume 7, Number 2 (Fall 2004).
- BEHG 120: *Non-Coercive Companion Animal Behavior Training:*
Volume 10, Number 1 (Spring 2007).
- BEHG 201: *Non-Coercive Child Rearing Principles and Practices:*
Volume 7, Number 2 (Fall 2004).
- BEHG 250: *Educational Behaviorology for Education Consumers:*
Volume ?, Number ? (Spring/Fall 20??)
- BEHG 340: *Educational Behaviorology for Education Providers:*
Volume ?, Number ? (Spring/Fall 20??)
- BEHG 355: *Verbal Behavior I:*
Volume 7, Number 2 (Fall 2004).
- BEHG 365: *Advanced Behaviorology I:*
Volume 9, Number 1 (Spring 2006).
- BEHG 400: *Behaviorological Rehabilitation:*
Volume 8, Number 1 (Spring 2005).
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- BEHG 445: *Advanced Experimental Behaviorology:*
Volume ?, Number ? (Spring/Fall 20??)
- BEHG 455: *Advanced Instructional Practices in Educational Behaviorology:*
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From the *Welcome* screen, you can select the *Sample* page of our *Behaviorology Community Resources* (designed especially for first-time visitors). This page provides a wide selection of useful articles, many from *Behaviorology Today*, in Adobe PDF format (with a button to click for a free download of Adobe's Acrobat Reader software, although most computers already have it). The articles are organized on several topical category pages (e.g., contributions to parenting and education, book reviews, and behaviorology around the world). Other selections on the *Sample Community Resources* page feature descriptions of TIBI's certificate programs and course syllabi, and links to some very helpful related web sites.

From the *Welcome* screen or the *Sample Community Resources* page, you can also select the main page of the web site, the *Complete Behaviorology Community Resources* page. This page contains a more complete set of materials, including (a) more articles under the same selection categories as on the *Sample* page, (b) additional article selection categories (e.g., contributions to autism, natural science, outreach, and verbal behavior) each with its own range of pages and PDF materials, (c) many more links to related behavior science web sites, and (d) several new types of selections (e.g., books and magazines pages and PDFs, and upcoming activities).

Visit the web site regularly. After each new issue of *Behaviorology Today*, we link the issue's articles to the relevant selections and categories on the web site.

Explore what interests you. And tell us about your site-visit experience. Your input is welcome, and will help us make further improvements.

As with any category of regular membership or Donor level, a paid online membership (US\$5) earns and supports access to the greater amount of online material included on the *Complete Behaviorology Community Resources* page. (See *TIBIA Memberships & Benefits* in this issue.)



Subscriptions & Back Issues

People can receive copies of *Behaviorology Today* in ways other than as a member. People can subscribe without membership for US\$20, and people can obtain back issues for US\$10 each. Photocopy, fill out, and send in the "membership" form on a later page. As applicable, check the "subscription" box, and/or list which back issues you are ordering. *Donations/Contributions* are also welcome, and are tax-deductible as TIBI is non-profit (under 501-C-3).

While supplies last, new subscriptions—with or without a regular membership—will include a copy of each past issue of *Behaviorology Today*, beginning with Volume 5, Number 1, (Spring 2002).

TIBIA Memberships & Benefits

The levels of TIBIA membership include increasing amounts of basic benefits. Here are all the membership levels and their associated, basic benefits:

Free-online membership. Online visitors (who may or may not elect to register online as a free member) receive benefits that include these: (a) access to selected, general interest *Behaviorology Today* articles and links, (b) access to Institute information regarding TIBI Certificates and course syllabi, and (c) access to previews of the benefits of other membership levels.

\$5 (to \$19) Basic-online membership. Online visitors who pay the \$5 online dues earn benefits that include these: *All* the benefits from the previous membership level plus (a) access to all *Behaviorology Today* articles and links online, (b) access to TIBIA member contact information online, and (c) access to special organizational activities (e.g., invitations to attend TIBI conferences, conventions, workshops, etc.).

\$20 (to \$39) Subscription membership. Those who mail in (by regular post) the \$20 subscription fee and form receive benefits that include these: *All* the benefits from the previous levels plus a subscription to the paper-printed issues of *Behaviorology Today* (ISSN 1536-6669).

Contribution amounts beyond these first three levels are *Donor* levels, which are described in *TIBI Donors & Levels* in this issue. All memberships are per year. The next four membership levels (Student, Affiliate, Associate, and Advocate) were the Institute's original membership categories, and so are sometimes designated the "regular" membership levels. Here are these regular membership levels and their basic benefits:

\$20 Behaviorology Student membership (requires paper membership application co-signed by advisor or department

chair, and dues payment—see *TIBIA Membership Criteria & Costs* in this issue). Benefits include *all* those from the previous levels plus these: Access to all organizational activities (e.g., invitations to attend and *participate* in meetings conferences, conventions, workshops, etc.).

\$40 *Affiliate membership* (requires paper membership application, and dues payment—see *TIBIA Membership Criteria & Costs* in this issue). Benefits include *all* those from the previous levels plus these: Access to advanced levels for those acquiring the additional qualifications that come from pursuing a professional behaviorology track.

\$60 *Associate membership* (requires paper membership application, and dues payment, and is only available to qualifying individuals—see *TIBIA Membership Criteria & Costs* in this issue). Benefits include *all* those from the previous levels plus these: TIBIA voting rights.

\$80 *Advocate membership* (requires paper membership application, and dues payment, and is only available to qualifying individuals—see *TIBIA Membership Criteria & Costs* in this issue). Benefits include *all* those from the previous levels plus these: May be elected to hold TIBIA or TIBI office.

Other 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 paying regular dues in the last third of the calendar year will be considered as members through the end of the following calendar year;
- ❧ Members paying regular dues 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 & Costs

TIBIA has four categories of regular 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 may not have 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 that support the integrity of the organized, independent discipline of behaviorology including its organizational manifestations such as TIBI and TIBIA. 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 stu-

dents, 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, independent discipline of behaviorology including its organizational manifestations such as TIBI and TIBIA.

For all regular membership levels, prospective members need to complete the membership application form and pay the appropriate annual 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 (or other) category are:

| <u>Category</u> | <u>Dues (in US dollars)*</u> |
|----------------------------------|--|
| 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 |
| 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 |

*Minimums: \$20 director or faculty; \$10 others

TIBIA MEMBERSHIP APPLICATION FORM

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

Copy and complete this form (please type or print)—for membership or contributions or subscriptions or back issues—then send it with your check (made payable to TIBIA) to the TIBIA treasurer at this address:

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

Check if applies:

- Contribution:
- Subscription:*
- Back issues:*
- ✻ Vol. ____, # __
- ✻ Vol. ____, # __

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: _____

*Subscriptions: us\$20/year; back issues: us\$10 each.

**For Student Membership:

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 magazine/newsletter *Behaviorology Today* (originally called *TIBI News Time*) 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 separate, independent discipline of behaviorology, the comprehensive natural science discipline of the functional relations between behavior and independent variables including determinants from the environment, both socio-cultural and physical, as well as determinants from the biological history of the species. Therefore, recognizing that behaviorology's principles and contributions are generally relevant to all cultures and species, the purposes of TIBI are:

- A. to foster the 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.☺

Periodical Information

Behaviorology Today [known as *TIBI News Time* for the first 4 volumes / 8 issues], is the magazine of *The International Behaviorology Institute* (a non-profit educational corporation) and is published in the spring and fall each year.

Behaviorology Today and TIBI can be contacted through the Editor at these addresses and web site:

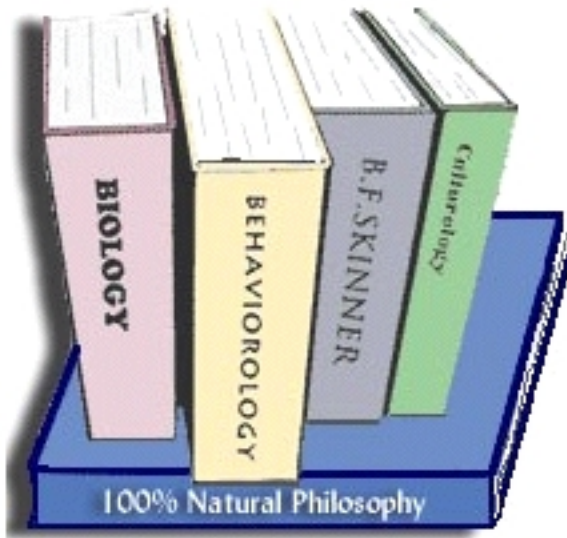
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To submit items for publication, contact the editor. Send items initially to the editor both by email (or disk) and by hard copy.

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

*This statement of the TIBI / TIBIA purposes has been adapted 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.—Ed.



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