

TIBI Online Syllabus for BEHG 101: Introduction to Behaviorology I

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[This is another installment in the series of syllabi for TIBI's online courses. Each syllabus appears in *Behaviorology Today* basically in the same form as it appears online. The series continues whenever there are syllabi that have yet to be printed, or that require reprinting due to substantial revisions. Locate additional syllabi through the *Syllabus Directory* at the back of the most recent issue.—Ed.]

Note #1: This syllabus contains some notes that supplement the more traditional syllabus parts. Each note is numbered for convenient reference. And some notes, like this one, have multiple paragraphs.

This syllabus is a long document. It is longer than a syllabus for a face-to-face course as it contains material that the professor would otherwise cover in person. *Hence it was designed to be printed out for reading!* Furthermore, it

was designed to be used *as a task check-off list*. Please print it out and use it these ways.

The only activity in this course for which you might need access to a computer, before the web-log, is to print this syllabus as a reference for how this course works so you can follow the directions to complete this course. This is a matter of access, student access to education, so that everyone who wants this course can take it regardless of whether they own several computers or only have access to one in their local library or in a friend's home.

Students can, if they wish, study the topics of this course free of charge, perhaps to fulfill their own interests. They would do so simply by completing the activities described in this syllabus.

Students can also study the topics of this course for TIBI (The International Behaviorology Institute) credit, perhaps toward a TIBI certificate. They would do so by paying the necessary fee to be assigned a professor to provide feedback on, and assessment of, their efforts. (This course is part of several TIBI certificates, including both the Behavior Literacy Certificate and the Effective Autism Intervention Certificate. Visit www.behaviorology.org or contact TIBI for details.)

Also, students can study the topics of this course for regular academic credit; they would do so by contacting any accredited institution of higher education that offers behaviorology courses accepted by TIBI, such as the State University of New York at Canton (SUNY-Canton) at www.canton.edu which is SUNY-Canton's web site. At SUNY-Canton this course is offered as *SSCI 245: Introduction to the Science and Technology of Behavior*. TIBI automatically accepts A or B grades from the academic-credit version of this course as equivalent to its own course toward its certificates (and C and D academic-credit grades can be remediated through TIBI for TIBI credit; contact TIBI for details). Alternatively, the work done completing the course through TIBI may make taking the course for academic credit easier; ask the professor who teaches SUNY-Canton's equivalent course about this.

The parts of this syllabus cover many topics. While the headings may be different, these include (a) the course content and objectives, (b) the text, study, and assessment materials, (c) the grading policy, (d) the necessary work-submission methods and professor feedback, and (e) the study-activity sequence and completion timelines.

Note #2: This course has no prerequisites. Completing this course, however, fulfills a fundamental prerequisite for most other behaviorology courses.

Course Description

BEHG 101: Introduction to Behaviorology I. Introduction to Behaviorology is a two-course sequence, for both majors and non-majors, on the natural science of the

variables controlling the behavior of humans and other animals. This first course of this sequence introduces the student to the range of components that comprise the discipline of behaviorology including (a) its philosophy of science and selection paradigm, and (b) its experimental methods, theory, and technology. The philosophy and paradigm include the criteria for natural science, the fallacy of inner causes, the significance of control and selection, the status of private events, and the behavior of the scientist. Methods include basic single-subject designs and measurement. Theory includes the fundamental natural laws describing the antecedent and postcedent relations between behavior and its controlling variables; these include such basic principles as added and subtracted—and primary and conditioned—reinforcement and punishment, extinction, simple schedules, stimulus control (discrimination and generalization), and concept formation. Technology includes the basic practices used to apply behaviorological principles to change accessible variables so as to change and especially to expand behavior repertoires through behavior engineering. Basic techniques include differential reinforcement, shaping, fading, chaining, and modeling and imitation. Other topics include avoidance and escape, emotion, deprivation and satiation, and superstitious behavior.

In summary, this course introduces students both to the elementary scientific principles governing behavior, and to the basic behavior-engineering techniques derived from these principles (i.e., why people do what they do, and what can be done about it). The principles are discovered, and the practices are developed, by the discipline of behaviorology which is the *natural* science of behavior. It was known originally as behavior analysis and now is known more precisely as behaviorology. This is the *independent* discipline of strictly *naturalistic* explanations of behavior and so should not be confused with disciplines that feature fundamentally *mystical* explanations of behavior and which thus cannot be natural sciences (e.g., psychology).

Historical considerations also receive attention. For example, as a name for the natural science of behavior, behavior analysis is the older and so still the more widely used term. But it is a less accurate name than behaviorology because psychology claims it as a type of psychology, as this name came into use during the period when behavior analysis and psychology were sharing their history. During this 50-year period, the natural scientists of behavior, the behavior analysts, tried to get psychology to shed its inherent mysticism and become a natural science. However, psychology *as a discipline* (and not necessarily as individual psychologists) did not (could not?) do so, and *that* created the basis for today's separate and independent disciplines...

Note #3: The second course in the two course sequence is *BEHG 102: Introduction to Behaviorology II*. (The

equivalent SUNY-Canton course is SSCI 345: Applied Science and Technology of Behavior.) To check out other behaviorology courses offered by TIBI, visit their locations on the TIBI web site (www.behaviorology.org). To check out other behaviorology courses offered by SUNY-Canton, see the list and descriptions—and in some cases, the syllabi for the asynchronous versions—on the faculty web page of the professor who teaches them (which currently is Dr. Stephen F. Ledoux; click Ledoux in the faculty directory at www.canton.edu).

Some information regarding some academically equivalent behaviorology courses, while relevant to many TIBI course syllabi, is included only in this syllabus as this course is the prerequisite for most of the other courses: Since SUNY-Canton's behaviorology—natural science of behavior—courses carry the SSCI (i.e., social science) designator for the course numbers, an accounting is in order. These courses are natural science of behavior courses because they are concerned with behavior solely from a strictly naturalistic perspective, thereby necessarily and automatically leaving out mystical perspectives, while using scientific methods with a subject matter focused on people. [For some details, see the article titled “Defining Natural Sciences” (*Behaviorology Today*, Volume 5, Number 1, Spring 2002, pp. 34–36).—Ed.] Indeed, SUNY-Canton's behaviorology courses were originally proposed and approved with the BEHG (i.e., behaviorology) designator for the course numbers (e.g., BEHG 135—Parenting Knowledge and Skills). However administrators, out of concern to simplify student credit transfer, had the designator changed to SSCI for two reasons: (a) The SSCI designator is more common than the BEHG designator. And (b) the SSCI designator is not inappropriate to the scientific-method-based *people focus* of these courses. So the SSCI designator would indeed simplify the transfer of credit for students. Hence, for administrative convenience, SUNY-Canton's natural science of behavior—behaviorology—courses carry the SSCI designator. [For additional details, see the article titled “Developing Opportunities to Disseminate the Natural Science of Behavior” (*Behaviorology Today*, Volume 5, Number 1, Spring 2002, pp. 50–54).—Ed.]

Course Objectives

The main objective of this course is to expand the student's behavior repertoire measurably in relevant areas of behaviorological course content. The student will:

- ✻ Describe fundamental principles and concepts;
- ✻ Relate basic methods and measurements;
- ✻ Systematize elementary practical technologies;
- ✻ Incorporate technique applications in several common prevention/intervention settings;
- ✻ Summarize disciplinary history;
- ✻ Compare philosophical perspectives;

- ✻ Connect disciplinary ethics and practices;
- ✻ Analyze current trends in the discipline.

Additional Objectives

✻ Successful, A earning students will be able to use (at an accuracy level of 90% or better) basic disciplinary terminology when discussing the general principles, concepts, methods, theories, practices philosophy, and ethics of the natural science and technology of behavior.

✻ Such successful students will also ask questions, seek answers, converse about, and act on the uses and benefits of this discipline for humanity.

✻ Such successful students will also behave more effectively in other ways with respect to themselves and others.

Required Materials (in their order of use)

✻ Wyatt, W.J. (1997). *The Millennium Man*. Hurricane, WV: Third Millennium Press. (ISBN 0-9663622-0-9)

✻ Ledoux, S.F., Wyatt, W.J., & Bias, E.F. (1999). *Study Questions for W. Joseph Wyatt's The Millennium Man*. Canton, NY: ABCs. (ISBN 1-882508-11-4)

✻ Holland, J.G. & Skinner, B.F. (1961). *The Analysis of Behavior*. NY: McGraw-Hill. (ISBN 07-029565-4)

✻ Ledoux, S.F. (2002). *Origins and Components of Behaviorology—Second Edition*. Canton, NY: ABCs. (ISBN 1-882508-08-4)

✻ Ledoux, S.F. (2002). *Study Questions for Origins and Components of Behaviorology—Second Edition*. Canton, NY: ABCs. (ISBN 1-882508-09-2)

Note #4: After being in print for about 40 years, the Holland and Skinner (*H&S*) book went out of print in 2001. It was in print so very long because it was so very effective in teaching its contents to readers. This was because it was comprehensively designed and thoroughly tested (and revised) as a completely programmed text that taught readers the laws of behavior by applying those very same laws. (No other programmed textbook has reached this level.) This course uses it because it is still the very best introduction to basic behaviorological methods, principles, and practices even though it has some terminology problems, being written, as it was, during the period when the natural science of behavior, as behavior analysis, and the discipline of psychology were sharing their histories.

When *H&S* went out of print, its copyright went to the B.F. Skinner Foundation. If you cannot locate a copy, contact the course professor or ledoux@canton.edu or TIBI for assistance. (You can work on the *MM* book assignments while locating a copy...)

You can order the required books through the publishers, including ABCs at 1-315-386-2684. You may also order these books through the online bookstore at www.behavior.org which is the web site of the Cambridge Center for Behavioral Studies. Parts of two of these books

(the “Origins” book and its study question book) carry over as part of the materials for the next course in the two-course introductory behaviorology sequence (described in Note #3).

Also, this course is grounded in the Shaping Model of Education which is informed by behaviorological science (rather than the Presentation Model of Education which is informed by psychology). In the Shaping model, teaching is not seen as mostly talking (nor is learning seen as mostly listening). Instead, teaching is the scientifically grounded design, arrangement, and application of educational materials, methods, and contingencies in ways that generate and maintain small but continuously accumulating behaviors the short and long range consequences of which are successful in producing an ever wider range of effective responding (i.e., learning) on the part of the student.

Grades

Grading policy does not involve curves, for you are not in competition with anyone (except perhaps yourself). That is, all students are expected to produce the academic products demonstrating that they have, individually, achieved at least mastery of the subject matter, if not fluency. Therefore, all students are expected to earn an A or a B (although inadequate products will produce a lower result that requires remediation before it can become a passing grade). Also, all students will receive the grades they earn. This holds even if the expectation for which the course is designed—that all students earn *As*—is met: If all earn *As*, then all receive *As*.

Passing grades are limited to A and B, and are earned according to the amount of assigned work that is successfully completed:

✦ Earning an A consists mainly of satisfactorily completing 90% or more of the work on all assignments.

✦ Earning a B consists mainly of satisfactorily completing more than 80% of the work on all assignments (but not more than 90% on them).

For convenience a point-accumulation system is invoked to keep track of progress through the course. Each of the three assignments on *The Millennium Man* and its study questions is worth 40 points, for a total of 120 points. Each of the assignments on the 14 Parts of the *H&S* book is worth 20 points for a total of 280 points. And each of the seven assignments on the *Origins* book readings and their study questions is worth 30 points, for a total of 210 points. The *web-log* assignment is worth 90 points. This provides a grand total of 700 possible points. The grade that you receive is partly based on the percentage of these possible points that you actually earn.

However, point accumulation is not the grade determiner but is merely used as a convenient way to track progress *on the presumption that all course tasks are in progress*. This is because doing work on *all* of the tasks for

the course is the more relevant determiner of grades than is the accumulation of points. (For example, a student who tries to accumulate just enough points, on some easier tasks, to get a B—while ignoring other course tasks—would not that way actually meet the criteria for a B and so would have to continue and complete all the required work satisfactorily to earn one of the passing grades.)

Also, students should expect to be asked occasionally to complete various test-like assessments. The level of success on these assessments helps gauge the extent to which the work on the course assignments is actually producing the learning implied by the completion of that work.

These practices are in place because the scientific research-data based Shaping Model of Education recognizes the student/professor relationship as a professional relationship in which coercive practices (i.e., aversive educational practices) are seen as inappropriate (so long as extreme conditions do not exist making such practices unavoidable). Instead, the more effective, efficient, and productive non-coercive practices of carefully designed and sequenced assignments emphasizing added reinforcement for timely work well done is generally seen as more appropriate. So, your effort and cooperation are expected and presumed; please do not disappoint either your professor or yourself.

About Using the Texts & Study Question Books

Unless specified otherwise, you need to write out your answers in longhand. The reason you are to write out your answers by hand is that this type of verbal response brings about more learning than merely saying—or even typing—the answer. This is because—as taught in another, advanced behaviorology class (i.e., BEHG 355: Verbal Behavior I)—writing the answer in longhand involves both point-to-point correspondence and formal similarity between the stimuli and the response products of the answer.

The Millennium Man Book

The Millennium Man (MM) is a short novel featuring a natural-science perspective on viewing, and dealing with, behavior. While it is basically a work of fiction, it makes use of many facts from a range of arts and sciences. It was designed to be enjoyable. It was also designed to develop critical thinking skills and to improve attitudes toward learning and the educational process.

The author wrote this novel for many reasons and for readers of many ages. One of the reasons was to help readers become more aware of certain aspects of art history, especially some interconnections between art and science. Another reason was to help readers become more aware of the multitude of beneficial scientific and technological advances, from a wide range of natural science and engineering disciplines, that accumulated in the twentieth century after many centuries of far less development. Yet perhaps the most significant reason was to help read-

ers become more aware of the many similar advances from a particular scientific and engineering discipline that itself arose in the twentieth century, the natural science of behaviorology (for which the author uses the older and less accurate name: behavior analysis). This natural-science perspective on behavior is a significant alternative to the mysticism-based perspective presented by traditional psychology; thus it is important to know about it, and the *MM* book introduces it well.

The H&S Book

The Holland and Skinner (*H&S*) book is a book that teaches the laws of behavior by using those laws to teach them. The authors wrote this book to accomplish that task and succeeded so well that the book has been used as a first textbook in this science for over 40 years!

After *all* of the textbooks for this course are described, but before the *Assignment Sequence* section, you will find an extensive set of guidelines on “How to Use the *H&S* Text.” *H&S* assignments are provided in the *Assignment Sequence* section. Submit your work according to the method specified in the *Submitting Your Work* section.

The Origins Book

Origins and Components of Behaviorology (the *Origins* text) is a book comprised of a dozen or so papers, of which seven (a little over half of the book) will be used in this course. These papers introduce and exemplify the broader discipline whose basic principles and practices are introduced in this course. (Other parts of this book carry over as parts of the next course in the two-course introduction to behaviorology sequence.)

The Study Question Books

The *Origins* text and the *Millennium Man* text each have a book of study questions. These were prepared to help you expand your behavior repertoire based on the material in each textbook. You are to complete each textbook’s study questions in the sequence assigned because learning occurs when reinforced responses are made (like writing question answers), especially responses that automatically provide their own reinforcing consequences (like being right) as does writing out study question answers correctly. You complete the assigned study questions, *after reading the chapter through*, by *writing out* the answer to each question when you come to it as you *reread* the chapter. You *write out* the answers right in the *Study Question* book. Write out your answers in full sentences that incorporate the questions. Check all your answers. And make any corrections that you find you need to make as you review and learn the material.

Most study question books start with a section titled To the Student and Teacher. *Read this section first!* It explains more on how to do the study questions success-

fully. (You will also find it helpful to mark the number of each study question in the margins of the text at the location of the study question’s answer.) Study question assignments are provided in the *Assignment Sequence* section. Submit your work according to the method specified in the *Submitting Your Work* section.

Note #5: Since you are to write out your answers to the study questions directly in the study question books, you need to have your own study question books. To assure that this is followed by everyone equally, you need to fill out and send in to your professor (by regular postal mail) the original ownership forms in the rear of your ABCs-published study question books.

The Web-Log Assignment

This written assignment requires you to create a five to six page *typed* log (like a diary) from a three to four hour visit (although not necessarily all at the same time) to the various pages on www.behaviorology.org which is the TIBI web site. Your log should include not only the times, visited page names, visited page sequences, and page-visit durations, but also your account of the best things you learned at these sites, plus any interesting discoveries worthy of return visits. You may begin this assignment anytime *after* completing the *H&S* book. You should submit this assignment *before* you finish the *Origins* text (which allows a period of four to five weeks). Submit your work according to the method specified in the *Submitting Your Work* section.

Submitting Your Work

Different assignments have different work submission methods. These only apply if you are taking the course for TIBI credit. (Any addresses and phone/fax numbers that you may need will be clarified upon enrollment.)

To submit your *H&S* answers and study question answers, which must be hand-written, you can scan and fax to your professor the pages that have your answers for each assignment. However, your professor would prefer that you photocopy those pages and send them to your professor by regular postal mail.

To submit your web log, you may email your work to your professor (but do not use email attachments). Or, you may scan and fax it to your professor. However, your professor would prefer that you print out your work (although it too may be handwritten), photocopy it, and send it to your professor by regular postal mail.

In all cases, you are to keep the original of your work. This insures against loss and enables you and your professor to communicate about your work (as you will then both have an identical copy). Note, however, that for study question answers, email and email attachments are

neither reliable enough, nor identical enough, for this purpose, so they are not to be used for this purpose.

Your work will be perused and points will be allocated according to the quality of your work. Should any inadequacies be apparent, you will be informed so that you can make improvements. While sometimes your professor will provide a metaphorical pat on the back for a job well done, if you do not hear of any inadequacies, then pat yourself on the back for a job well done even as you continue on to the next assignment.

Guidelines for Using the H&S Text Successfully

These guidelines, which are about using the *H&S* (Holland and Skinner) text: *The Analysis of Behavior*, are needed because this book is not a typical book. Rather, it is a program of instruction in book form. Originally written for an early teaching machine—predating computers—this program is a successful applied example of the natural science that it teaches. To ensure its effectiveness, the authors thoroughly researched and tested the program with regular, undergraduate students prior to publication. Evidence for this effectiveness can be seen in the continuing demand for the book by professors which has kept it in print since 1961. That demand occurs because, as a result of completing the book, students acquire an extensive repertoire in the fundamentals of the natural science of behavior. Indeed, this book's success was an important factor leading to an extensive movement in programmed instruction in many disciplines and in many geographical areas worldwide. (That movement is now limited to those who are willing to do *all* the work needed not only to write a program but also to research and validate the program's effectiveness—such as in the case of today's effective computer instructional programs.)

To learn more about why this book is effective, and how to use it, read both the *To the Instructor* and *To the Student* sections (which start on pages v and vii respectively). Since this book covers fundamental laws of behavior that have not changed, it remains up-to-date for those laws. (To bring students up to date on progress since its publication, today's professors combine its use with other sources.)

In the time since publication in 1961, some significant disciplinary changes have taken place. As a result, the references in the *To the Instructor* and *To the Student* sections to “psychology...the analysis of behavior” have become somewhat inaccurate. For that reference implies—perhaps adequately then but inadequately now—that the analysis of behavior is, or is part of, psychology. Today, neither of these is the case, at least in the West. The problem stems from the book's being published near the end of what can now be seen as a period of 30 to 40 years in which psychology and the natural science analysis of behavior shared, under the psychology label, their

academic departments and history. That is, Western psychology (which is a discipline of fundamentally *mystical* explanations of behavior because it allows non-natural events in its explanations) and what was called behavior analysis or, now, behaviorology (which is a discipline of strictly naturalistic explanations of behavior because it *disallows* non-natural events in its explanations) shared their history from the 1930s through the 1960s. However, the incommensurable differences between Western psychology and behaviorology have gradually led, since then, to recognition of their status as separate disciplines.

However, there is no need to change those uses of the term psychology in the *H&S* book since what this book reports did arise during the shared history, and so is a part of the history of both disciplines. What *is* needed is *this* direction of update: Many advances and developments in the natural science of behavior (i.e., what the authors call *The Analysis of Behavior*) have occurred since publication in 1961. These advances have been little reported in Western psychology (and so cannot be reasonably seen as ongoing advances in that discipline). Furthermore, these advances *have* been fully reported in behavior analysis/behaviorology (and so *are* to be reasonably seen as ongoing advances in that natural science). Thus, the continuity between this book and subsequent advances resides with the developments occurring in behavior analysis/behaviorology. (See Ledoux, 2002, for further details about the shared history. See Fraley & Ledoux, 2002, for extensive details on disciplinary differences and developments. References are at the end of the syllabus.)

More How-to-Use Details

The details provided here presume that the *To the Student* section has already been read. Using the book according to that section and these notes and procedures will increase the efficiency with which a student's repertoire is effectively expanded; the student is unlikely to need repeating part of the book if she or he follows these procedures. He or she will get it right the first time. Here are the detailed “how-to-use” procedures:

✦ Be clear on the difference between *Parts* and *Sets*. The book has 14 Parts, and each Part contains two or more Sets. There are 53 Sets altogether. The Parts are numbered with Roman numerals while the Sets are numbered with Arabic numerals. (And each Set contains many, many individual *Frames* which will soon be described.) The distinction is important because the course assignments involve Parts, not Sets. If you are not clear on the difference, and so only cover Sets 1 and 2 (pages 1-13), rather than Parts I and II (i.e., Sets 1 through 11; pages 1-71), for the first assignment, you will miss lots of material that needs to be completed before the next assignment. Note that there is no need to test your knowledge, other than to track your successful completion of the as-

signments, because one *cannot* successfully progress through later Parts/Sets without first having mastered the material in all earlier Parts/Sets, for later material presumes, uses, and builds upon the earlier material. (Indeed, you may be occasionally asked to complete a Set in a classroom or other supervised setting, because completing a Set in a supervised setting to the usual high standard will demonstrate that you yourself must indeed have completed the prior sets successfully also, since comprehending them would be the needed foundation for success in the supervised Set. In this way you would be assuring that you yourself are properly doing the work you turn in, and that you yourself are benefiting from that work.)

❧ Each Set is made up of frames that have a word or phrase missing. You read each frame and, based on experience with previous frames, provide a response for the missing part of the frame. To do this, you follow the numbers. That is, *you do not read down the page* as is the usual fashion. Rather, *you read the frames in the order in which they are numbered*, which means you read across each page, page after page, at the same level, until instructed to turn back to a particular page and drop down to the next level. Each frame and its corresponding answer box (which is usually on the next page) has the same number, and you follow them in sequence. (The numbers have two components: the Set number followed by the frame/answer box number. So 25-18 would be Set 25, frame or answer box 18.)

❧ Note that each Set is titled at the top of its first page, but the first frame of the Set is on the top of the *next* page. For example, Set 1 is titled on the top of page 1, but frame 1-1, the first frame in Set 1, is on the top of page 2.

❧ Note also that some Sets have an exhibit page, before their first page, to which you will need to refer while doing the Set. For example, while Set 3 is titled on page 15, an exhibit needed for the Set appears on page 14.

❧ Here is the basic procedure: (a) Read the frame. (b) Form your response for the missing part of the frame. (c) Write down your response by hand on the page of a notebook you have just for this purpose. (Put only the Set number at the top of the page for the Set, and then put one answer-response on each line of the page. You need not bother to put any line, frame, or answer numbers on your notebook pages.) (d) Turn to that frame's answer box and check your response with the correct response in that box. (e) Either go on to the next frame (if your response was correct) or *cross out your response and write the correct response* while rereading the frame (if your response was incorrect). Do not write in you book as often there is insufficient room for the correct answer. Also, *do not write out the contents of the frame!*

❧ You really *must* cross out an incorrect answer and write the correct one next to it while/after rereading the frame. If you do not do so, then you are most likely to

have learned that incorrect answer. And then you will have to unlearn it before later learning the correct answer, and that is no fun at all!

❧ The program works by providing you with the occasion to make responses that can then get learned through the consequences provided by seeing the correct response *after* writing your own response. Thus, peeking ahead to see the correct response before writing out your own response will not help you; in fact, peeking ahead will prevent you from learning. *It is imperative that you understand this danger of peeking ahead!* If you peek ahead, what you then write will not be the product of a response that would be learned by seeing the correct answer *after* writing; peeking ahead will only necessitate redoing the material so that the required progress can be made.

❧ As you turn each page, the left side of the book is either blank or looks up-side-down. Actually, what you are seeing is pages from the second half of the book; when you get to the end of Set 24, you turn the book over and proceed back with Set 25, etc.

❧ Making, on average, one or two incorrect responses (that you then correct) in every ten is typical and acceptable even for students earning an A. However, if you find that you are, on average, providing incorrect responses on three or more frames out of ten, then you need to verify that you are following all the procedures, and check with your professor. You do not want to learn the material in some Sets weakly because all the Sets that come after that will be more difficult to master.

❧ The title box for each Set includes an estimated time that is reasonably realistic when the program is presented on a teaching machine. You will probably find that using the book to cover the Sets takes a little more time (e.g., when using the book, Set 1 may take 30 minutes rather than the estimated 23 minutes). The estimated times for all the Sets totals less than 15 hours; you can probably expect to spend more like 25 hours overall, or about 1.5 to 2 hours *average* on each Part, as you go through the book. If English is not your first language, then perhaps you may need 3 hours for each part. (With two Parts assigned each week, that would be about the right amount of time and work for each week of a course.)

❧ Due to the focused nature of your interaction with the material in this book, you will probably find yourself more aware of the time you spend on this book in comparison with your awareness of time spent in normal reading of a regular textbook. Do not let this deter you from putting in as much time as you need to master the book's material.

❧ Here are some extras and reminders: The more fluently (thoroughly) you master earlier Sets, the more easily you will master later Sets. Remember to consider the whole of each frame, and not just the blank, because the rest of the frame is preparing the foundation for suc-

cess with future frames. Concepts are usually used in different ways across several frames before any frame asks you to provide that concept as a response. Indeed, if you find a frame difficult, or making a response difficult, then go back and repeat/review the last few frames; doing that will often provide the assistance you need just then. And *always write a response before going to the answer*; (a) you will be correct more often than you might suspect, (b) a correcting consequence for a wrong answer can keep you from learning the wrong answer but if you have made no answer response then you can learn nothing, and (c) similarly, seeing a correct answer without having made a response can condition peeking which does not teach you anything of value.

If your response was correct but you were not confident about it (i.e., you guessed) then back up a few frames to find out why that response is correct. Similarly, when you are wrong, make sure you know why your response was not correct, and figure out what made you think you were correct. You may feel that doing these things will slow you down, but *they are a part of doing it right the first time*. You will be much happier following these procedures than you will be having to repeat several Sets because you did not follow them and so find yourself inadequately prepared to continue and succeed with later Sets.

✧ Also, studying after midnight is usually a waste of time because so little is actually learned under that circumstance, in spite of all your effort. Similarly, avoid studying for hours and hours continuously; instead, take a short (five or ten minute) break during each hour of study.

✧ If you follow these guidelines, you will learn the contents of the Sets well. Then the later Sets in the book will be just as easy for you as the early Sets are, since you will be well-prepared for them.

Other General Comments

Again, this book teaches by applying the same laws of behavior that it is teaching. It uses numerous small steps that are immediately consequated through the added reinforcement of correct-answer presentation, and the steps successfully build on each other, accumulating to form a large, new part of your behavior repertoire that you can apply beneficially in numerous areas of human concern.

Caution: Still, for all its efficiency and effectiveness, many people do not find reading the *H&S* book to be an enjoyable endeavor. Probably no one reads it twice, and few would read it the first time unless they are required to do so as part of a course. Nonetheless, the success—over the last few decades—of the students who have read this book demonstrates that you will learn more from reading this one book than you would from reading two or three ordinary textbooks. (Or, to put it another way, to get the same amount of knowledge, you would have to read an

ordinary textbook two or three times over; now *that* would likely be worse than reading this book once!)

Assignment Sequence

Students should work their way through the course by reading and studying the texts and materials, and sending in their work for each assignment. The slowest reasonable self-pacing of the coursework (presuming a typical 15-week semester) is this sequence which can be used as a check-off list:

- Week 1: The *MM* novel and study questions, Chs. 1–7.
- Week 2: The *MM* novel and study questions, Chs. 8–14.
- Week 3: The *MM* novel and study questions, Chs. 15–22.
- Week 4: Parts I & II of *H&S*.
- Week 5: Parts III & IV of *H&S*.
- Week 6: Parts V & VI of *H&S*.
- Week 7: Parts VII & VIII of *H&S*.
- Week 8: Parts IX & X of *H&S*.
- Week 9: Parts XI & XII of *H&S*.
- Week 10: Parts XIII & XIV of *H&S*.
- Week 11: The *Origins* book, (a) the Terminology paper (on pages 199–204, with the study questions on pages 47–49 [of the *Origins-Study Questions* book]), and (b) the China Eyes paper (on pages 297–302 (with the study questions on pages 63–65); also, begin the *Web-Log* assignment.
- Week 12: The *Origins* book, (c) the Philosophy of Science paper (on pages 25–32, with the study questions on pages 11–13), and (d) the Adventitious Control paper (on pages 303–306, with the study questions on pages 66–68).
- Week 13: The *Origins* book, (e) the Introduction to Behaviorology Origins paper (on pages 3–24, with the study questions on pages 1–9).
- Week 14: The *Origins* book, (f) the Multiple Operants paper (on pages 205–241, with the study questions on pages 50–54).
- Week 15: The *Origins* book, (g) the Therapy paper (on pages 243–258, with the study questions on pages 55–58); also, finish the *Web-Log* assignment.

Do the assignments in this sequence, even if you do them at a faster pace than the pace presented here. If you go slower than this schedule, assignments could easily back up on you to the point where insufficient time remains to complete them in a satisfactory manner.

Note #6: Be sure that everything you submit is readable and contains your name!

Note #7: The usual higher education workload expectation for a course is about 150 hours. (The typical face-to-face course features about 50 in-class contact hours with

the university expecting about 100 more hours of additional study at the average rate of about two hours out of class for each hour in class.) This can be accomplished at rates ranging from about 50 hours per week over three weeks to about ten hours per week over the typical 15 weeks of a semester. Of course, some students may take a little less than 150 hours, while others may take more than 150 hours, to do the work to the same acceptable and expected standard.

You can—and are encouraged to—go through the assignments as rapidly as your schedule allows. This could mean spending a typical 15 weeks on the course. Or it could mean doing the whole course in as little as—but not in less than—three weeks, as one would progress through the *single* allowed course in a three-week summer school term. That is, you could work on the course anywhere from minimum part-time (i.e., at the rate of about ten hours per week, as described in the *Assignment Sequence* section) to maximum full-time (i.e., at the rate of about 50 hours per week).

If you are to be successful, you need to exercise some self-management skills by starting immediately and keeping up a reasonable and steady pace on the course work. You need to do this because your professor will *not* be reminding you that the products of your work are due; all the course work is set forth in this syllabus and so is

automatically assigned. You are expected to follow through on your own. You need to set an appropriate pace for yourself (or accept the pace in the *Assignment Sequence* section) and adhere to that pace, and thereby get the sequence of assignments done and submitted to your professor. This will assist your success.

At various points in the course, you will be provided with feedback about your work. Upon completing all the coursework, you will be provided with your earned grade. (The grade is provided solely for the person whose work earned the grade.) We at TIBI are sure that the outcomes of your efforts to study this aspect of behaviorological science will benefit both you and others, and we encourage you to study further aspects.✻

References

- Ledoux, S.F. (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. *Origins and Components of Behaviorology—Second Edition* (pp. 3–24). Canton, NY: ABCs.
- Fraley, L.E. & Ledoux, S.F. (2002). Origins, status, and mission of behaviorology. In S.F. Ledoux. *Origins and Components of Behaviorology—Second Edition* (pp. 33–169). Canton, NY: ABCs.✻