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NOTE: Prior to Volume 16, Number 1 (Spring 2013) the *Journal of Behaviorology* went by the name of *Behaviorology Today*, which occasionally published fully peer-reviewed articles, explicitly so labeled. Beginning with Volume 15, Number 1, in January 2012, *all* material receives full peer review. See the "Submission Guidelines" for details.

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* This issue contain four new TIBI course syllabi. More new syllabi, or updates of previous syllabi, may appear in future issues. (See the *Syllabus Directory* for details.)

Editorial

James O’Heare

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This issue of *Journal of Behaviorology* contains four new TIBI course syllabi. With this issue and the previous one, this brings all currently available TIBI courses up to date. Further syllabi will be published as new courses are developed. A directory of current TIBI syllabi may be found at the back of the most recent issue of the *Journal of Behaviorology*.

This issue also contains an article that clarifies a common mistake in the classification of conditioned subtracted punishers. This error is particularly common in the nonhuman animal behavior field and it is my hope that this article will help rectify that common error. This article is simultaneously published in the *Journal of Animal Behavior Technology*, in Volume 17, Number 1, available through the Association of Animal Behavior

Professionals website to ensure as broad a dissemination as possible.

The desperately needed project to update *The Analysis of Behavior* by Holland and Skinner is proceeding, bringing it in line with current terminology practices. Shuler and Ledoux have carried out a major review and have proposed a detailed set of changes that the B. F. Skinner Foundation may use to further this goal. The changes have proceeded through peer review and can be found in this issue.

Finally, John B. Ferreira has written an open letter, the message of which I, and many others, wholeheartedly support. ☺

James O’Heare, DLBC,
Editor, *Journal of Behaviorology*

Visit BOOKS at www.behaviorology.org

At www.behaviorology.org TIBI provides information on as many behaviorology resources as possible, including books and audio/visual materials, as well as electronic versions of back issues of *Journal of Behaviorology* and its precursor *Behaviorology Today*. Some recent books are (a) two *Study Question* books, by Lisa Ramond, on Lawrence Fraley’s *Dignified Dying* book and his *Rehabilitation* book, and (b) *What Causes Human Behavior—Stars, Selves, or Contingencies?* by Stephen Ledoux. Check them out!

Behaviorology Terminology Adjustments for The Analysis of Behavior by Holland and Skinner

Mike Shuler^a

Stephen Ledoux^b

Abstract: Updating the terminology used in the programmed textbook, *The Analysis of Behavior* (Holland & Skinner, 1961) keeps the book capable of conditioning initial terminology repertoires with beginning students of the natural science of behavior. This would reduce the need to condition improved terms to replace the old terms in these students' repertoires that the original textbook would condition. This paper provides our recommendations for the frame by frame adjustments that could accomplish this terminology updating for this textbook.✧

Under various labels (e.g., TEAB [The Experimental Analysis of Behavior], behavior analysis, behaviorology) professors teaching the natural science of behavior have been using the “H&S” (Holland & Skinner) programmed text, *The Analysis of Behavior* (Holland & Skinner, 1961) for over half a century. Over that time the discipline has continued to develop, including being formally recognized by a group of its adherents in 1987 as a then 75-year old, separate and independent natural science discipline related more to biology than to psychology (see Fraley & Ledoux, 1992/2015); indeed, as behaviorology, this discipline is not any kind of, nor any part of, psychology.

A major aspect of those disciplinary developments involved refinements in terminology, including some of the terminology that the H&S text so effectively conditions. Over the last decade, as a result of these terminology developments, using the H&S text has begun to require professors to provide much editorial reconditioning of student terminology repertoires. In light of this situation, some terminological adjustments for the H&S text are in order. Presented here are our suggested adjustments for editions of the H&S text,

printed or electronic, for current classroom/student use. (In addition, we also hope that current electronic editions of the H&S text also find ways to reinforce, and shape, rather than punish, student responses that might be “wrong” for somewhat irrelevant reasons, such as “merely” misspelling the correct answer.)

More adjustments than those we suggest here are possible. For example, we have not tried to change the unnecessary, near-exclusive use of male personal pronouns (arising from the then gender-insensitive practices of the mid-1900s) in the H&S text; this leaves room for further changes that not only incorporate a balance of gender-referencing personal pronouns, but also rewrite frames, like 21–67, that today offend readers through sexist content. We suggest rather few changes beyond our targeted terms. For example, in the last few sets we suggest changing “patient” to “client” in most instances (e.g., those instances not involving medical practices). We also resisted rephrasing parts of frames to eliminate currently awkward usages such as the adverb form of “added” and “subtracted,” (a) because such rephrasing could alter the efficiency of the terminology conditioning across particular frames or their surrounding

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frames, and (b) because directly conditioning those usages provides a more appropriate approach to reducing such awkwardness, especially in new repertoires.

Our suggestions here comprise what we consider as the minimum adjustments needed to make the H&S text fully compatible with an early 21st century behaviorology. Our suggestions mainly pursue a particular set of terminology changes, while also remaining sensitive to avoiding changes that would reduce the effectiveness of the appropriate conditioning inherent in the program, particularly in the frames surrounding each change. Ledoux (2014) provides one resource for the reasons for our suggested terminology adjustments.

Our original plan called for evaluating each set, frame by frame, for the most common terminological changes that would be necessary to update the terminology in the H&S text. This update involves changing from the terms that arose during the era when the text was written—near the end of the era when natural scientists of behavior, in TEAB, were still trying to change the discipline of psychology, in whose academic homes history had stuck them, into a natural science of behavior—to the terms needed to educate early 21st century majors in behaviorology. We anticipate the H&S text serving as the main text in an early course with behaviorology majors, particularly in a course designed to establish a well-conditioned familiarity with some of the basic terminology of this natural science discipline (see Ledoux, 2015).

These were the main terms for which we watched, and the alternatives we most likely would substitute (although some instances necessitated other, additional adjustments as appropriate):

- psychology/psychologist(s)/psychological (when denoting the natural science of behavior / natural scientist(s) of behavior / pertaining to...) TO behaviorology/behaviorologist(s)/behaviorological

- psychologist(s) (as agentialist, or when the word need not actually denote a psychologist in the text) TO professor (or ...)

- positive/negative (reinforcer, etc.) TO added/subtracted

(even though only the original H&S text seemed successful at conditioning the correct technical usage of

positive/negative. Changing these in H&S makes [a] for consistency with other behaviorology texts in use, and [b] thus avoids a need to condition the newer terms later when the student encounters other behaviorology books; both of these considerations relate to all the terms/changes suggested here.)

- accidental (e.g., reinforcer, etc.)

TO coincidental

- discriminative/discrimination/discriminate

TO evocative/evocation/evoke

- emit/emitted TO

(a minimal but appropriate rephrasing substitution)

- learn/learning/learner TO

(a minimal but appropriate rephrasing substitution)

Emphasizing those terminology–changes, here are our suggested alterations to the front matter (by page number) followed by alterations to the frames (by frame number).✿

FRONT MATTER

p. vi, last paragraph, lines 6-7: *change* course in psychology emphasizing the analysis of behavior *to* course in behaviorology emphasizing the experimental analysis of behavior

p. vi, last paragraph, next to last line: *change* psychologists *to* professors

p. vii, first paragraph, lines 1-2: *remove* that substantial part of psychology which deals with

p. vii, first paragraph, line 10: *change* psychopharmacology *to* behavioral pharmacology

p. vii, first paragraph, line 11: *change* psychotherapy *to* therapy

p. ?: first page of the table of CONTENTS, Set 9: *change* Positive *to* Added *AND change* Negative *to* Subtracted

p. ?: first page of the table of CONTENTS, Set 14:
change Accidental to Coincidental

p. ?: second page of the table of CONTENTS, Set 21:
change Discrimination to Evocation

p. ?: last page of the table of CONTENTS, Set 52: *change*
Psychotherapy to Therapy

7-18 *change* be emitted *to* occur (*or to* happened *or to* ...) [as “be emitted” conditions a misleading term]

7-19 *change* emit a response *to* respond (...) [...]

7-23 *change* be emitted *to* occur ...

7-25 *change* be emitted *to* occur

7-27 ***change*** “to be emitted rather than elicited” ***to*** “to occur rather than be elicited”

PART I REFLEX BEHAVIOR

SET 1: Simple Reflexes [GOOD (i.e., no adjustments deemed necessary)]

SET 2: Conditioned Reflexes

In the first half of this Set (i.e., 2-4, 2-6, 2-8, 2-9, 2-11, and 2-12) H&S begins using the familiar “learning,” “learn,” and “learned,” but then it fades these out, and we make adjustments for these terms in later Sets.

SET 3: Conditioned Reflexes (continued) [GOOD]

SET 4: Pavlov’s Experiments [GOOD]

SET 5: Conditioned Reflexes (continued) [GOOD]

SET 6: Response Mechanisms

[Frame #] 6-21 *remove*: the organism’s

PART II OPERANT CONDITIONING: ELEMENTARY CONCEPTS

SET 7: Introduction to Operant Conditioning

7-13 *remove* natural (as its inclusion begins conditioning a confounded limitation on what is natural)

7-14 *put quotes around* deliberately arranged ***AND change*** *is to* seems more

SET 8: The Standard Experimental Situation

p. 46, near the end of paragraph 1: ***change*** “it is said to be emitted” ***to*** “it is simply said to occur”

p. 46, paragraph 2, line 2: *change* emitting responses *to* responding

8-1 ‘emitted’ (change as changed in Set 7)

8-2 *change* the pigeon will emit pecks *to* the pecking will occur

8-12 *change* emitting *to* occurrence of

8-14 *change* have been emitted but _____ *to* have happened but _____ _____ ***AND change*** *the answer from not to* not been

8-15 *change* is not emitted *to* does not occur

8-16 ***change*** “The response is emitted” ***to*** “The response happens” ***AND change*** “The response is not emitted” ***to*** “The response does not happen”

8-25 *change* psychologist *to* professor ***AND change*** when he emitted a faint “cooing” sound *to* when a faint “cooing” sound occurred

8-27 *remove* been ***AND in the answer change*** emitted (made) *to* occurred (happened)

8-28 *change* psychologist *to* professor ***AND change*** when he emitted “coos” *to* when he “cooed”

SET 9: Positive and Negative Reinforcement

Change title to Added and Subtracted Reinforcement

9-4 *change* positive *to* added ***AND in answer change*** negative *to* subtracted

9-5 *in answer, change* negative *to* subtracted ***AND change*** positive *to* added

9-6 *change* negative *to* subtracted

9-7 *in frame AND answer, change* negative *to* subtracted

9-8 *in frame AND answer, change* positive *to* added

9-9 *in answer, change* positive to added *AND change* negative to subtracted

9-10 *change* negative to subtracted

9-11 *in answer, change* positive to added

9-12 *change* positive to added *AND change* negative to subtracted

9-13 *change* When an infant emits the sound “da-da” to When the sounds “da-da” occur with an infant

9-20 *in answer, change* (negatively reinforced) to (subtractedly reinforced)

[Note: The adverb forms, *positively* and *negatively*, occur so seldomly that substituting *addedly* and *subtractedly* is but one acceptable alternative, and new students typically adapt well to such specialized forms. Another alternative would be to rephrase the wording to avoid the adverb forms; however, we found that such rephrasing would often overflow the space in a frame, as well as put the designed conditioning of the text at risk, so we declined this alternative.]

9-29 *change* are emitted to occur

SET 10: Basic Concepts Applied

10-2 *in answer, change* negative to subtracted

10-3 *twice, change* negative to subtracted

10-5 *in answer, change* positive to added

10-7 *change* is emitted to occurs

10-11 *remove* he _____ emits *AND change* music. to music occurs _____.

10-12 *remove* a man frequently _____ *AND change* music. to music frequently _____. *AND in answer, change* emits to occurs (happens)

10-13 *remove* he frequently _____ *AND change* golf. to golf frequently _____. *AND in answer, change* emits to occurs (happens)

10-14 *change* an individual's _____ of emitting to the _____ of

10-16 *change* emit the response to respond

10-18 *change* When a pigeon is reinforced for pecking a key, to When pecking a key is reinforced, *AND remove* is, *AND in the answer change* emitted to occurs (happens)

10-29 *remove* been *AND in the answer change* emitted to occurs (happens)

10-30 *change* emitted to occur *AND in answer, change* is not to does not

10-31 *change* is emitted to occurs

10-32 *change* to emit the response, a response is emitted to for the response to happen, a response occurs

SET 11: Conditioned Reinforcers

11-12 *change* is emitted to occurs

11-28 *change* you are to your behavior is

11-37 *change* has been emitted to occurs

11-41 *since it sounds unnecessarily agential, change* If the chimpanzee can no longer use tokens to If tokens no longer work

11-59 *change* behavior you don't want another person to emit to another person's behavior that you don't want to occur

PART III OPERANT CONDITIONING: PRECISE CONTINGENCIES

SET 12: The Cumulative Recorder

12-8 *change* were emitted to occurred

12-25 *change* the animal emitted about _____ responses between **a** and **b**. to about _____ responses occurred between **a** and **b**.

SET 13: Factors Affecting Speed of Conditioning

p. 78, paragraph 4 (“The Learning Curve”), lines 4-5: **change** a basic learning process. **to** “a basic learning process” rather than a basic conditioning process.

13-2 *in answer, change* (unlearned) to (“unlearned”)

13-6 *change* pigeon is to pigeon's behavior is

13-13 *change* Pigeon A emitted the first peck to With pigeon A the first peck occurred

13-21 *change* learning to “learning”

13-29 *change* is emitted to occurs

13-37 *change* learns to “learns” *AND change* learning to conditioning

13-43 *change* learning to “learning” (i.e., conditioning)

13-44 *change* learning to “learning” (i.e., conditioning) *AND in the answer change* learning curve to “learning curve” (conditioning curve)

13-48 *change* learning process to “learning” process

SET 14 Accidental Contingencies and Superstitious Behavior

Change title to Coincidental Contingencies and Superstitious Behavior

- 14-7 *change* accidental to coincidental AND in answer, change accident to coincident
- 14-8 *change* accidental to coincidental
- 14-9 in the answer, *change* accidental to coincidental
- 14-10 *change* by accident to a coincidence
- 14-11 *change* accidentally to coincidentally
- 14-13 *change* accidental to coincidental AND *change* accidentally to coincidentally
- 14-14 *change* accidentally to coincidentally
- 14-15 *change* accidentally to coincidentally
- 14-16 *change* be emitted to occur
- 14-19 *change* accidental to coincidental AND in answer *change* accidental to coincidental
- 14-22 *change* accidental to coincidental
- 14-23 *change* accidental to coincidental
- 14-26 in the answer *change* accidental to coincidental
- 14-28 *change* accidental to coincidental
- 14-30 *change* accidental to coincidental
- 14-31 *change* accidental to coincidental AND *change* accidentally to coincidentally
- 14-32 *change* accidental to coincidental AND *change* “accidental to “coincidental
- 14-34 in the answer *change* negative to subtracted
- 14-35 in the answer *change* negative to subtracted
- 14-36 *change* (accidental or “natural”?) to (coincidental or “natural”?) AND *change* negative to subtracted AND in the answer *change* accidental to coincidental
- 14-37 in the answer: *change* accidental to coincidental AND *change* negative to subtracted
- 14-38 *change* accidental to coincidental
- 14-39 *change* is never emitted to does not occur
- 14-40 *change* likely that you will _____ (TT) the response for the first time to likely that the response will _____ for the first time AND in answer *change* emit to occur
- 14-41 *change* accidentally to coincidentally
- 14-42 *change* been emitted to occurred AND *change* has been (1) to has (1) AND in the answer: *change* emitted to occurred AND *change* accidental to coincidental
- 14-43 *change* Accidental to Coincidental

- 14-44 in the answer *change* accidental to coincidental
- 14-45 in the answer *change* accident(-al) to coincident(-al)
- 14-46 *change* by accident. to by coincidence.
- 14-47 *change* accidental to coincidental AND *change* accidentally to coincidentally
- 14-48 *change* a pigeon may reach to a pigeon’s behavior may reach
- 14-49 twice, *change* accidentally to coincidentally
- 14-50 twice, *change* learner to “learner”
- 14-51 *change* learns to is conditioned

PART IV SHAPING

SET 15: Principles of Shaping New Behavior

- p. 97, paragraph 1, line 2: *change* is emitted to occurs
- p. 97, paragraph 1, line 4: *change* Condition the dog to Condition the dog’s behavior
- 15-7 *change* In learning the high jump, you begin to In training the high jump, you begin conditioning
- 15-15 *change* The high jumper is reinforced to The high jumper’s behavior is reinforced
- 15-18 *change* reinforce the dog for to reinforce the dog’s behavior of
- 15-38 *change* In learning to bowl to In being conditioned to bowl
- 15-44 *change* learner to bowler

SET 16: Applications of Principles of Shaping

- 16-1 *change* Learning to The conditioning AND *change* learning to the conditioning
- 16-6 *change* Learning to say “ball” makes it easier for the child to learn to say “fall” to Conditioning that makes the child say “ball” makes conditioning to say “fall” easier
- 16-7 *change* learning to the conditioning of AND *change* learned. to conditioned.
- 16-8 Twice, *change* learns to is acquiring
- 16-19 *change* be emitted to occur
- 16-21 *change* are emitted to occur
- 16-27 *change* learning to conditioning

SET 17: Review: Test Covering Parts I-IV

17-4 **change** When a pigeon is reinforced for pecking a key, **to** When a pigeon's behavior of pecking a key is reinforced, **AND change** response is (3) **to** response (3) **AND in the answer, change** emitted **to** occurs

17-5 **in the answer, change** (1) negative (2) positive **to** (1) subtracted (2) added

17-7 **change** an individual's _____ of emitting certain types of behavior **to** the _____ of occurrence of certain types of an individual's behavior

17-9 **in the answer, change** accidental **to** coincidental

17-13 **change** is emitted without **to** occurs without **AND change** is not emitted in **to** does not occur in

17-15 **change** A psychologist fed a baby when he emitted "coos," but not when he cried. **to** A behaviorologist fed a baby when "coos" occurred, but not when crying occurred.

17-18 **in the answer, change** accidental **to** coincidental

17-32 **change** slow learner may **to** slow to condition organism may **AND change** faster learner. **to** faster to condition organism.

17-39 **change** Learning to say "ball" makes it easier for the child to learn to say "fall" **to** Conditioning that makes the child say "ball" makes conditioning to say "fall" easier

PART V INTERMITTENT REINFORCEMENT**SET 18: Schedules Defined; Fixed Interval Schedules**

p. 117, paragraph 1, line 4: **change** been emitted **to** occurred

18-36 **change** discrimination **to** evocation

SET 19: Variable Interval, Fixed Ratio, and Variable Ration Schedules

19-40 **change** were emitted **to** occurred

19-43 **change** are emitted **to** occur

SET 20: Schedules of Reinforcement: Summary and Review [GOOD]**PART VI STIMULUS CONTROL****SET 21: Stimulus Discrimination**

Change title to Stimulus Evocation

p. 137, paragraph 1, line 1: **change** pigeon was **to** pigeon's key-pecking behavior was

p. 137, paragraph 4, line 4: **change** until the pigeon emitted 25 responses recorded in **to** until 25 key-peck responses were recorded in

21-12 **change** a discriminative stimulus (S^D) **to** an evocative stimulus (S^{Ev}) **AND in the answer change** S^D (discriminative stimulus) **to** S^{Ev} (evocative stimulus)

21-13 **change** S^D **to** S^{Ev}

21-14 **change** S^D **to** S^{Ev}

21-15 **change** S^D **to** S^{Ev}

21-16 **in the answer change** discriminative **to** evocative

21-24 **change** discrimination procedure

to evocation procedure

21-25 **in the answer change** (S^D) **to** (S^{Ev})

21-26 **change** S^D **to** S^{Ev}

21-27 **change** (S^D) **to** (S^{Ev})

21-28 **change** S^D **to** S^{Ev} **AND change** discrimination **to** evocation

21-29 **change** a discrimination **to** an evocation **AND in the answer change** S^D **to** S^{Ev}

21-30 **in the answer change** discrimina(-tion) **to** evoca(-tion)

21-31 **change** a discrimination **to** an evocation

21-34 **in the answer change** (S^D) **to** (S^{Ev})

21-35 **in the answer change** discrimination **to** evocation

21-36 **change** is emitted **to** occurs **AND change** S^D **to** S^{Ev} **AND in the answer change** discrimination **to** evocation

21-37 **change** Discrimination **to** Evocation

21-39 **change** then emit responses **to** then its responses will occur

21-46 **change** Discrimination **to** Evocation **AND in the answer change** discrimination **to** evocation

21-47 **in the answer change** discrimination **to** evocation

21-49 **change** A discrimination **to** An evocation

21-50 **change** discrimination **to** evocation

21-51 **change** discrimination **to** evocation **AND change** S^D **to** S^{Ev} **AND change** be emitted **to** occur

21-52 **change** S^D **to** S^{Ev} **AND change** if _____, **to** if it _____, **AND in the answer change** emitted **to** occurs

21-53 *change* discrimination to evocation AND in the answer *change* discriminative to evocative

21-54 *change* discrimination to evocation AND *change* a discriminative to an evocative

21-56 *change* a discriminative to an evocative

21-57 *change* discrimination to evocation AND in the answer, *change* (twice) emitted to occurring AND *change* (S)^D to (S)^{Ev}

21-59 *change* a discriminative to an evocative AND *change* S^D to S^{Ev} AND *change* if (2) _____-ed. to if it (2) _____. AND in the answer, *change* emit(-ed) to occurs

21-60 twice, *change* S^D to S^{Ev}

21-61 *change* discrimination, to evocation, AND *change* S^D. to S^{Ev}.

21-63 *change* discrimination, to evocation, AND *change* S^D. to S^{Ev}.

21-65 *change* S^Ds to S^{Ev}s AND in the answer, *change* (S)^D to (S)^{Ev}

21-66 in the answer *change* S^D to S^{Ev}

21-68 *change* emitting to the occurrence of AND in the answer *change* S^D to S^{Ev}

21-69 *change* a discriminative to an evocative AND *change* S^D to S^{Ev} AND *change* if emitted. to if it occurs.

21-70 *change* a discriminative to an evocative AND *change* S^D to S^{Ev} AND *change* if emitted. to if it occurs.

21-71 *change* are discriminative (1) _____, to are evocative (1) _____, AND *change* are discriminative (2) _____. to are evoked (2) _____.

21-72 *change* learning to being conditioned AND *change* his (1) _____-tive response to his (1) _____ response AND in the answer *change* discrimina(-tive) to evoked

21-73 *change* discrimination to evocation AND in the answer *change* S^D to S^{Ev}

21-74 in the answer *change* S^D to S^{Ev}

21-75 *change* a discriminative to an evoked AND *change* S^D to S^{Ev}

SET 22: Stimulus Generalization

p. 149, paragraph 1, line 2: **change** a discriminative stimulus (S^D). to an evocative stimulus (S^{Ev}).

p. 149 paragraph 1, line 3: *change* be emitted to occur

p. 149 paragraph 1, Line 4: *change* S^D to S^{Ev}

p. 149 paragraph 3, line 8: *change* The responses emitted by the pigeon to The pigeon's responses that occur

22-1 *change* The pigeon is on to The pigeon's behavior is on

22-5 *change* be emitted to occur

22-10 *change* been emitted to occurred

22-13 *change* was emitted to occurred

22-14 *change* were emitted to occurred

22-19 *change* emitted to occurring

22-23 *change* were emitted. to occurred.

22-33 *remove* by the learner

22-35 *change* discrimination to evocation AND *change* can make to becomes affected by AND in the answer *change* discriminations to evocations

22-37 *change* emits to says AND in the answer *change* discrimination to evocation

22-38 in the answer *change* discrimination to evocation

22-39 in the answer *change* (S)^D to (S)^{Ev}

22-41 in the answer *change* discrimination(s) to evocation(s)

22-42 **change** An organism may emit the same response to to The same response of an organism may occur due to

22-43 in the answer *change* S^D to S^{Ev}

22-44 *change* discriminations to evocations

22-47 in the answer *change* S^D to S^{Ev}

22-48 in the answer *change* S^D to S^{Ev}

22-50 in the answer *change* S^D to S^{Ev}

22-51 in the answer *change* discrimination (acceptable S^D) to evocation (acceptable S^{Ev})

22-53 *change* S^Ds to S^{Ev}s AND *change* if emitted to if they occur

22-55 *change* discriminative to evocative AND *change* S^D to S^{Ev} AND *change* if emitted to if it happens

22-66 *change* S^Ds to S^{Ev}s

22-67 *change* S^D to S^{Ev}

SET 23: Chaining

23-2 in the answer *change* discriminative to evocative

23-5 *change* S^D to S^{Ev} AND in the answer *change* S^D (discriminative stimulus) to S^{Ev} (evocative stimulus)

23-6 *change* S^D to S^{Ev}

23-7 in the answer *change* S^D to S^{Ev}

23-8 *change* S^D to S^{Ev}

23-9 in the answer *change* discriminative stimulus (S^D) to evocative stimulus (S^{Ev})

23-10 twice, *change* S^D to S^{Ev}

23-11 *change* S^D to S^{Ev}

23-12 *change* discriminative to evocative

23-14 in the answer *change* S^D to S^{Ev}

23-15 *in the answer change* discriminative (S^D) to evocative (S^{Ev})

23-16 *in the answer change* S^D to S^{Ev}

23-17 *change* S^D to S^{Ev}

23-18 *change* S^D to S^{Ev}

23-22 *in the answer change* S^D to S^{Ev}

23-23 *change* S^D to S^{Ev}

23-24 *change* S^D to S^{Ev}

23-25 *change* S^D to S^{Ev}

23-26 *in the answer change* S^D to S^{Ev}

23-27 *in the answer change* S^D to S^{Ev}

23-28 *change* S^D to S^{Ev}

23-29 *in the answer change* S^D to S^{Ev}

23-30 *change* S^D to S^{Ev}

23-31 *in the answer change* S^D to S^{Ev}

23-33 *three (3) times, change* S^D to S^{Ev}

23-34 *change* S^D to S^{Ev} **AND** *in the answer change* S^D to S^{Ev}

SET 24: Shaping Continuous Repertoires

p. 167, paragraph 1, line 4: *change* discriminative to evocative

p. 167, paragraph 3, line 6: **change** Learning **to** The behaviors determined by conditioning **AND change** (1) discriminating **to** (1) distinguishing

p. 167, paragraph 3, line 8: *change* (2) discriminating to (2) distinguishing

24-7 **change** a child for making a **to** a child's

24-15 *change* the child to the child's behavior

24-17 **change** When a child is learning to "draw from copy," **to** When a child's behavior of "drawing from copy" is being conditioned

24-25 **change** A child can be conditioned to call two visual patterns "like" or "unlike," quite apart from learning to draw. **to** A child's *behavior* of calling two visual patterns "like" or "unlike" can be conditioned quite apart from her drawing behavior.

24-27 *in the answer change* S^D to S^{Ev}

24-28 *change* S^D to S^{Ev}

24-33 **change** The better a child can discriminate "like" patterns, **to** The better a child's behavior is evoked by "like" patterns,

24-35 *change* discriminate to distinguish

24-36 **change** who cannot discriminate **to** whose behavior is not evoked by **AND change** The painter has not developed an adequate _____. **to** The painter's behavior is not under precise _____. **AND in the answer change** discrimination **to** evocations

24-37 *change* unless he can discriminate to unless his behavior is evoked by

24-38 **change** Such a person has not acquired adequate _____ of tones. **to** Such a person's behavior is not under adequate _____ by tones **AND in the answer change** discrimination **to** evocation

24-39 **change** he cannot (1) _____ differences **to** his behaviors are not (1) _____ by differences **AND in the answer change** discriminate **to** evoked

24-40 **change** they cannot _____ between **to** their behaviors are not _____ by the differences between **AND in the answer change** discriminate **to** evoked

24-41 **change** After the child has learned to discriminate between **to** After the child's behavior has come to be evoked by the differences between

SET 25: Discrete and Continuous Repertoires

25-7 **change** when we can discriminate very fine differences between adjacent stimuli on the continuum. **to** when very fine differences between adjacent stimuli on the continuum evoke our behavior.

25-15 *in the answer change* (S^Ds) to (S^{Ev}s)

25-37 **change** Someone just learning to drive **to** Someone whose driving behavior has just begun being shaped

PART VII DEPRIVATION

SET 26: Basic Concepts

p. 181, paragraph 2, line 3: *change* has been reinforced to its behavior has been reinforced

26-18 **change** A soldier who is both incapacitated by wounds and dehydrated by loss of blood emits **to** For a soldier, incapacitation by wounds and dehydration by loss of blood evoke

SET 27: Generalized Reinforcers [GOOD]

SET 28: Feeding Cycles

28-1 *change* The mice emit *to* For the mice, contingencies induce

SET 29: Review: Test Covering Parts V–VII

29-1 *change* winetaster can make very fine (1) _____. *to* winetaster's behavior is under the control of very fine (1) _____. **AND in the answer change** discriminations *to* evocations

29-7 *in the answer change* S^D to S^{Ev}

29-16 *change* An organism may emit the same response *to* The same response of an organism may occur

29-25 *change* discrimination *to* evocation **AND in the answer change** S^D to S^{Ev}

29-28 *change* a discrimination *to* an evocation

PART VIII EMOTION I

SET 30: Activation Syndrome

30-28 *change* Psychosomatic *to* So called psychosomatic **AND change** of psychosomatic *to* of these

SET 31: Predispositions in Emotions

31-1 *change* An animal deprived of food is predisposed to emit behavior *to* Deprivation of food predisposes the occurrence of behavior **AND change** A frightened animal is _____ to emit behavior *to* Frightening stimuli _____ the occurrence of behavior **AND in the answer change** predisposed *to* predispose

31-3 *change* A hungry animal can *to* A hungry animal's behavior can **AND change** a frightened animal's behavior can *to* a frightened animal can

31-5 *change* of emission *to* of occurrence

31-6 *change* positively *to* addedly

31-7 *change* We ourselves are *to* Our own behavior is

31-10 *change* of emission *to* of occurrence

31-11 *change* The angry man is _____ to emit certain operants rather than others. *to* For the angry man, certain operants rather than others are _____ to occur.

31-14 *in the answer change* negative *to* subtracted

31-31 *change* no cigarettes *to* no snacks **AND change** in pockets, cigarette boxes, etc., *to* in the pantry, cupboards, etc., **AND change** of cigarettes. *to* of snacks.

PART IX AVOIDANCE AND ESCAPE BEHAVIOR

SET 32: Basic Concepts

32-1 *in the answer: change* positive *to* added **AND change** negative *to* subtracted

32-2 *in the answer change* negative *to* subtracted

32-3 *change* negative *to* subtracted

32-5 *change* negative *to* subtracted **AND in the answer change** negative *to* subtracted

32-6 *change* positive *to* added

32-8 *change* positive *to* added

32-9 *change* negative *to* subtracted

32-12 *in the answer change* negative *to* subtracted

32-14 *twice, change* negative *to* subtracted

32-15 *change* Negative *to* Subtracted **AND change** negative *to* subtracted **AND, twice, change** positive *to* added

32-16 *change* positive *to* added

32-17 *in the answer change* negative *to* subtracted

32-18 *change* is emitted *to* occurs **AND change** learns *to* is conditioned

32-20 *change* learns *to* is conditioned

32-22 *change* it has not yet acquired behavior which will _____ the shock. *to* behavior which will _____ the shock has not yet been conditioned.

32-23 *change* the organism to emit escape behavior. *to* escape behavior to occur.

32-25 *change* negative *to* subtracted

32-29 *change* negative *to* subtracted

32-31 *change* negative *to* subtracted

32-32 *change* negative *to* subtracted

32-33 *change* negative *to* subtracted

32-37 *in the answer change* negative *to* subtracted

SET 33: Analysis of Examples of Avoidance and Escape

- 33-1 *in the answer change* negative *to* subtracted
 33-2 *in the answer change* negative *to* subtracted
 33-4 *in the answer change* negative *to* subtracted
 33-6 *in the answer change* negative *to* subtracted
 33-9 *change* negative *to* subtracted
 33-13 *change* is emitted *to* occurs
 33-18 *in the answer change* negative *to* subtracted
 33-22 *in the answer change* negative *to* subtracted
 33-23 *in the answer change* positive *to* added
 33-27 *change* a discriminative *to* an evocative *AND in the answer change* (S)^D *to* (S)^{Ev}
 33-28 *change* positive *to* added
 33-29 *change* S^D *to* S^{Ev}
 33-30 *in the answer change* negative *to* subtracted

SET 34: Avoidance Experiments

- p. 229, paragraph 1, line 4: *change* it fails to emit a response within *to* a response fails to occur within
 p. 229, paragraph 2, line 2: *change* S^D *to* S^{Ev}
 34-6 *in the answer change* negative *to* subtracted
 34-7 *change* Many responses emitted by the animal *to* Many of the animal's responses
 34-11 *change* positive *to* added
 34-23 *change* responses emitted during *to* responses occurring during

PART X EMOTION II

SET 35: Experiments on Anxiety

- p. 235 paragraph 1, line 4: *change* rat is reinforced *to* rat's behavior is reinforced
 35-15 *change* positive *to* added

SET 36: Emotions as Reinforcing and Aversive Conditions

- 36-1 *change* the reader or viewer by *to* the reader's or viewer's behavior by
 36-4 *change* psychiatrist *to* therapist

- 36-5 *in the answer: change* positive *to* added *AND change* negative *to* subtracted
 36-6 *change* If a timid person forces himself *to* If conditions compel a timid person
 36-9 *in the answer change* negative *to* subtracted
 36-14 *in the answer change* negative *to* subtracted
 36-21 *change* Skilled behavior learned while one is calm *to* Skilled behavior, conditioned while one is calm,

PART XI PUNISHMENT

SET 37: Basic Concepts

- p. 245, in the box: *change* Positive *to* Added *AND change* Negative *to* Subtracted *AND change* positive *to* added *AND change* negative *to* subtracted

- 37-3 *twice change* positive *to* added *AND twice change* negative *to* subtracted
 37-4 *change* positive *to* added *AND change* negative *to* subtracted
 37-5 *change* positive *to* added *AND change* negative *to* subtracted
 37-6 *in the answer change* negative *to* subtracted
 37-7 *change* negative *to* subtracted
 37-8 *in the answer change* positive *to* added
 37-9 *change* positive *to* added
 37-10 *change* positive *to* added *AND change* negative *to* subtracted
 37-13 *in the answer change* positive *to* added *AND change* negative *to* subtracted
 37-15 *twice change* positive *to* added
 37-17 **ADD:** [Later Developments changed this]
 37-18 *twice change* S^D *to* S^{Ev}
 37-19 *twice change* S^D *to* S^{Ev}
 37-20 *twice change* S^D *to* S^{Ev}
 37-21 *change* S^D *to* S^{Ev}
 37-21 *in the answer change* (S)^D *to* (S)^{Ev}
 37-22 *change* positive *to* added
 37-28 *in the answer change* negative *to* subtracted
 37-30 *change* positively *to* added
 37-32 *in the answer change* accident(-al) *to* coincident(-al)

SET 38: Effects of Punishment During Extinction of Reinforce Behavior

- p. 251, paragraph "(A)": *change* Eight rats were reinforced with food on a fixed-interval schedule for pressing a lever. *to* The lever pressing of eight rats was reinforced with food on a fixed-interval schedule.

38-1 *in the answer change* positive *to* added
38-3 **change** one group of four rats was _____ (TT)
for each lever pressing response. **to** each lever pressing
response of one group of four rats was _____ (TT).
38-12 *change* emitted *to* occurring
38-20 *change* be emitted *to* occur

SET 39: Additional Effects of Punishment Functions of the Aversive Stimulus

39-5 *change* positively *to* addedly **AND** *in the answer
change* negative *to* subtracted
39-6 *change* positively *to* addedly
39-13 *change* are emitted *to* occurs
39-20 *change* negative *to* subtracted
39-21 *change* be emitted *to* occur
39-23 *in the answer remove* be emitted
39-24 *change* been emitted *to* occurred

SET 40: Effects of Continuous Punishment

p. 264, paragraph "(J)": **change** A pigeon was reinforced
to A pigeon's key-pecking was reinforced

40-38 *change* positive *to* added
40-39 *change* positive *to* added

[Note: Frame 40-5 *already says* added punishment.]

SET 41: Review: Test Covering Parts VIII – XI

41-5 *change* positive *to* added
41-7 *change* be emitted *to* occur
41-8 **change** A pigeon reinforced with food for pecking
a key **to** A pigeon for which key-pecking responses were
reinforced with food **AND change** S^D **to** S^{Ev}
41-9 **change** person forces himself **to** person's
contingencies force him
41-10 *change* positive *to* added
41-15 **twice change** positive *to* added **AND twice change**
negative *to* subtracted
41-19 *in the answer change* negative *to* subtracted
41-20 *change* is emitted *to* occurs

PART XII SCIENTIFIC ANALYSIS & THE INTERPRETATION OF COMPLEX CASES

SET 42: Goals and techniques of Science

42-7 *twice change* spontaneous *to* "spontaneous"

SET 43: Multiple Effects

43-3 *in the answer change* S^D s *to* S^{Ev} s
43-5 *change* S^D s *to* S^{Ev} s
43-6 *change* discriminative *to* evocative
43-7 *in the answer change* S^D s *to* S^{Ev} s
43-8 *twice, change* S^D *to* S^{Ev}
43-11 *change* positive *to* added
43-15 *change* S^D *to* S^{Ev}
43-16 *change* S^D s *to* S^{Ev} s
43-20 *change* S^D *to* S^{Ev}
43-26 *change* positive *to* added

SET 44: Multiple Causes and Conflicting Responses

44-6 *change* S^D s *to* S^{Ev} s
44-7 *in the answer change* S^D s *to* S^{Ev} s
44-10 *in the answer change* S^D s *to* S^{Ev} s
44-11 *change* S^D *to* S^{Ev}
44-12 *in the answer change* S^D *to* S^{Ev}
44-14 *change* be emitted *to* occur
44-16 *change* positive *to* added
44-17 *change* negative *to* subtracted
44-19 *change* positive *to* added **AND change** negative
to subtracted
44-26 *change* when the act of beginning to execute a
response *to* when the beginning of a response
44-28 *change* to decide about *to* conclude **AND change**
tentatively decide *to* tentatively move

SET 45: A Problem in Behavioral Engineering

45-15 *in the answer change* S^D *to* S^{Ev}
45-16 *change* discrimination *to* evocation
45-19 *change* positive *to* added
45-21 *in the answer change* S^D *to* S^{Ev}
45-22 *in the answer change* $(S)^D$ *to* $(S)^{Ev}$
45-23 *change* S^D *to* S^{Ev}
45-23 *in the answer: change* positive *to* added **AND change**
negative *to* subtracted

45-26 *in the answer change* accidental to coincidental
 45-29 *in the answer change* (S)^D to (S)^{Ev}
 45-30 *in the answer change* discrimination to evocation
 45-31 *change* discrimination to evocation
 45-32 *change* by using to through AND *in the answer change* negative to subtracted

PART XIII SELF-CONTROL

SET 46: Analysis of Voluntary and Involuntary Behavior (GOOD)

SET 47: Techniques of Self-Control

[Note: Throughout this Set, “positive” and “negative” are correctly used with their traditional connotations of “good” and “bad” respectively, rather than in their technical sense of “presenting” and “withdrawing” stimuli respectively; thus they should not be changed in this set.]

47-5 *change* S^D to S^{Ev}
 47-24 *in the answer change* S^D to S^{Ev}

PART XIV INTERPRETATION OF PERSONALITY

SET 48: Inadequate Self-knowledge

48-1 *in the answer remove* learned
 48-3 *in the answer change* S^Ds to S^{Ev}s
 48-4 *change* S^Ds to S^{Ev}s AND *in the answer change* S^Ds to S^{Ev}s
 48-5 *change* Discrimination to Evocation AND *change* S^Ds to S^{Ev}s
 48-6 *change* unlearned to unconditioned
 48-7 *change* emitted to occurring AND *in the answer change* S^Ds to S^{Ev}s
 48-13 *in the answer change* S^Ds to S^{Ev}s
 48-14 *change* S^Ds to S^{Ev}s
 48-15 *change* learned to been conditioned
 48-30 *change* is seldom to seldom AND *in the answer change* emitted to occurs

SET 49: Rationalization

49-1 *in the answer remove* (negatively reinforcing)
 49-4 *change* child for eating to child's behavior of eating AND *in the answer change* S^Ds to S^{Ev}s

49-5 *change* we have _____ a response which to a response has _____ which AND *in the answer change* emitted to occurred
 49-8 *change* is emitted to occurs

SET 50: Drug Addiction

50-1 *in the answer change* negative to subtracted
 50-2 *in the answer change* positive to added
 50-10 *change* they may then emit the punished behavior, to the punished behavior may then occur
 50-13 *change* said to be (1) _____-ly reinforced. to said to result from (1) _____ reinforcement. AND *change* is (2) _____-ly reinforced. to is a result of (2) _____ reinforcement. AND *in the answer: change* negative(-ly) to subtracted AND *change* positive(-ly) to added
 50-14 *change* engages in positively reinforced behavior to engages in behavior resulting from added reinforcement
 50-17 *in the answer remove* (negative reinforcers)
 50-19 *change* negative to subtracted

SET 51: Aggressiveness, Withdrawal, and Reaction Formation

51-11 *in the answer: change* positive to added AND *change* negative to subtracted
 51-14 *in the answer change* negative to subtracted
 51-24 *change* a person is * * * likely to emit that type of behavior. to such behavior is * * * likely to occur.
 51-25 *in the answer change* S^Ds to S^{Ev}s
 51-26 *in the answer change* S^Ds to S^{Ev}s
 51-27 *change* S^Ds to S^{Ev}s
 51-28 *in the answer change* S^Ds to S^{Ev}s

SET 52: Psychotherapy

Change title to Therapy

52-5 *change* emitted to occurring
 52-6 *change* is emitted to occurs
 52-7 *twice, change* patient to client
 52-9 *change* psychotherapy to therapy AND *change* patient to client
 52-10 *change* patient's to client's AND *change* The patient therefore emits very _____ punishable behavior. to For the client, therefore, very _____ punishable behavior occurs.
 52-11 *change* patient to client
 52-12 *change* is emitted to occurs

- 52-13 *change* patient *to* client
52-14 **change** patient **to** client **AND change** because he is about to emit (2) _____ verbal behavior. **to** because (2) _____ verbal behavior is about to occur.
52-15 *change* is emitted *to* occurs **AND change** patient *to* client
52-16 **change** patient **to** client **AND change** induce the patient to emit the behavior which continues to be **to** induce the client behavior which continues to be
52-17 *change* patient *to* client
52-18 *change* patient *to* client
52-19 *change* accidentally *to* coincidentally
52-21 *change* Emitting the same response *to* The same response occurring
52-24 *change* patient *to* client
52-25 *change* psychotherapy *to* therapy
52-27 *change* therapists *to* psychiatrists
52-28 *change* therapist *to* psychiatrist

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SET 53: Review: Test Covering Parts XII – XIV

- 53-3 *in the answer change* S^Ds *to* S^{Ev}s
53-11 *change* psychotherapy *to* therapy **AND change** patient *to* client
53-17 *change* patient's *to* client's
53-21 *change* psychotherapy *to* therapy

ON TERMS

Correct Classification of Conditioned Punishers as Added versus Subtracted Stimuli

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Abstract: This paper clarifies a theoretical matter with respect to the commonly misused terminology surrounding conditioned subtracted punishers. Although discussion of conditioned subtracted punishment is uncommon in the literature, particularly behaviorological and behavior analytic textbooks, the topic is more common in animal training texts, and a general review of such sources showed that in every instance of its definition and/or exemplification, the term is misapplied. In all of these cases, conditioned subtracted punishers were added stimuli that acquired their punitive capacity through being paired with other subtracted punishers. However, this categorization of an added stimulus as a conditioned subtracted punisher is incorrect. Such stimulus *additions* are properly categorized as conditioned *added* punishers regardless of whether the stimulus they were paired with was added or subtracted. Behaviorologists, behavior analysts, and behavior technologists can ensure clarity by categorizing such stimulation accurately.

Most behaviorological and behavior analytic texts cover the topic of added and subtracted punishment. Of those sources that cover this topic, few provide a depth of coverage to include discrimination between conditioned and unconditioned punishers. Conditioned and unconditioned punishers are discussed more frequently in animal training texts, likely because these kinds of stimuli are common in such applied settings. However, in all sources sampled for review, none categorized conditioned subtracted punishers in accordance with established categorization standards. Here is a brief analysis of this error provided as an effort to prompt more accurate use of such terms.

Ledoux (2014, pp. 150–160; 2015, pp. 202–203) has provided a comprehensive classification of postcedent stimulation consistent with Figure 1.

The technical term “conditioned subtracted punisher” is used here in accordance with current behaviorological terminology practices (Ledoux 2015; 2010). Those outside of behaviorology, including many behavior analysts, are likely familiar with the older, more confusing, terms “positive” and “negative” with respect to consequences, but the terms “added” and “subtracted” respectively alleviate confusion with the common terms

“good” and “bad,” and more accurately reflect the presentation or increase in stimulation, or removal or decrease in stimulation.

A subtracted punisher is defined, consistent with the algorithm found in Figure 1, as *a stimulus, the subtraction of which during or immediately following a response class member, results in a decrease in the rate or relative frequency of that response class on subsequent occasions*. This is similar to definitions found in most behaviorological and behavior analytic sources. A conditioned punisher is defined as *a stimulus that has acquired its punitive capacity from having been paired with an unconditioned punisher or another established conditioned punisher*. Again, this uncontroversial definition is common among behaviorological and behavior analytic sources. A conditioned subtracted punisher would thus be defined as *a stimulus, the subtraction of which during or immediate following a response class member, results in a decrease in the rate or relative frequency of that response class on subsequent occasions, having acquired its punitive capacity from having been paired with an unconditioned punisher or another established conditioned punisher*.

Added or subtracted stimulation is defined as such by whether *the stimulus in question* is added (i.e., presented

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Key words: conditioned added punishment, conditioned subtracted punishment, behaviorology, applied behavior analysis, behavior technologist, animal trainer

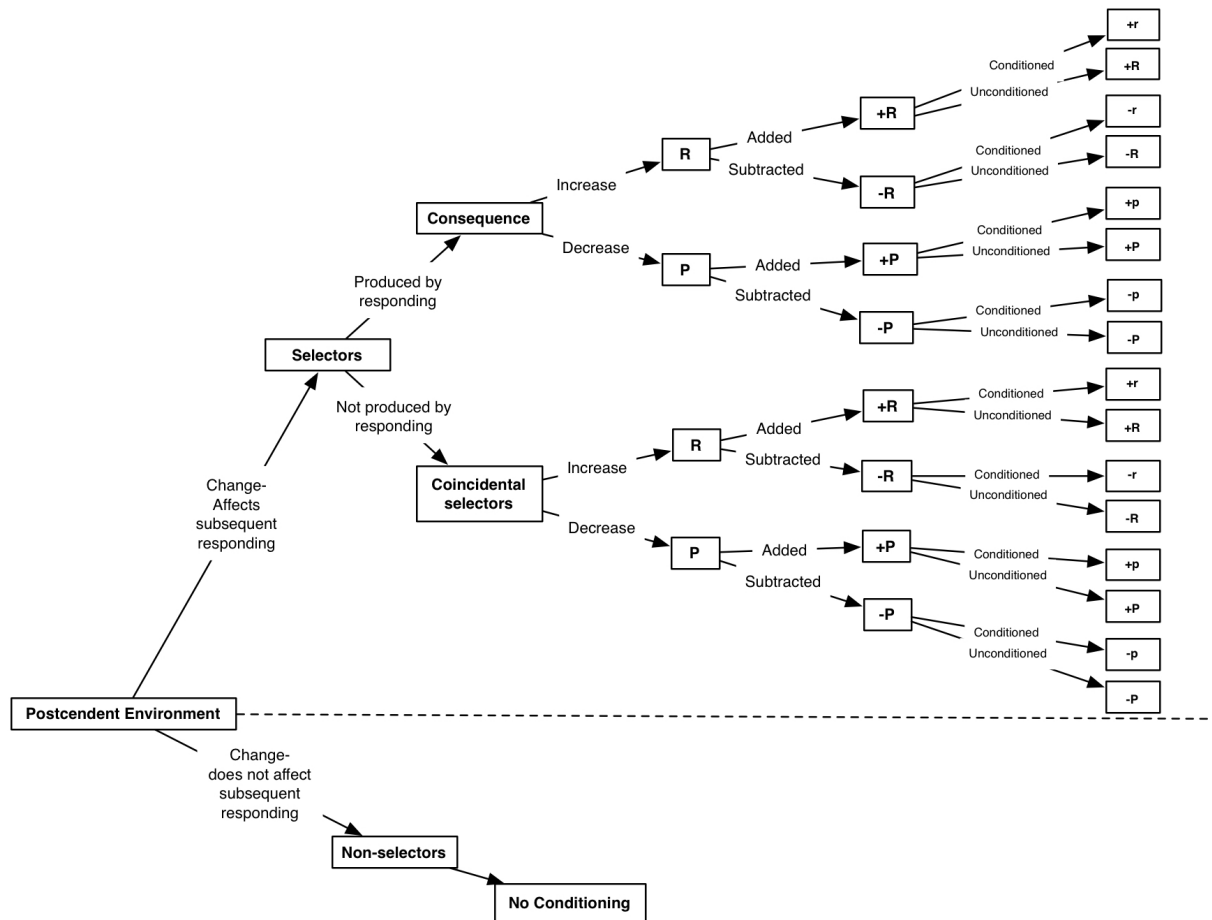


Figure 1. Diagram depicting the complete range of postcident events resulting in changes in behavior. R = unconditioned reinforcer or where its status as conditioned or unconditioned is unspecified. P = unconditioned punisher or where its status as conditioned or unconditioned is unspecified. r = conditioned reinforcer and p = conditioned punisher. + = added and - = subtracted. Adapted from Ledoux (2010; 2015). By convention, capital letters are used where the conditioned versus unconditioned status are unspecified.

or increased) to, or subtracted (i.e., withdrawn or reduced) from, the environment. The classification of a stimulus as added or subtracted is *not* defined by whether *the stimulus that it was paired with*, to establish it as a conditioned stimulus, was added or subtracted.

In all sampled sources, conditioned subtracted punishers were either defined specifically as stimuli paired with unconditioned subtracted punishers, or examples were provided that described the pairing of an added stimulus with unconditioned subtracted punishers. This practice, though common, is an error in classification since it either *allows* for an added stimulus or *requires* an added stimulus to be classified as a subtracted stimulus. Presumably, this is because the added stimulus acquired its punitive function by being paired with a subtracted punishment. But this error conflates a subtracted stimulus with an added stimulus that was paired with a subtracted stimulus. Again, stimuli are defined by whether they, themselves, are added or subtracted, and not be what

class of stimuli they were paired with to establish them as conditioned stimuli.

In applied settings, a conditioned punisher can be added or subtracted, but the stimuli are almost universally added as a practical matter. Here is a common scenario exemplified within the literature as “conditioned subtracted punishment.” A dog being trained to sit on cue, exhibits a non-criterion behavior when the cue is delivered and the trainer *adds* the vocalization “Oops” (or “Too bad,” “Try again,” etc.) and immediately subtracts social attention by turning away. The subtraction of an ongoing added reinforcer constitutes subtracted punishment, assuming it results in a decrease in the rate or relative frequency of the non-criterion behavior and the previously neutral stimulus (the vocalized “Oops”) acquired its punitive function as a result of repeated pairing with the subtracted social contact.

It would be erroneous to classify the added vocalization “Oops” as a conditioned *subtracted* punisher.

This stimulus would, in fact, be properly classified as a conditioned punisher, or more specifically, a conditioned added punisher, regardless of how the subject came to be conditioned to react to it (i.e., what it was paired with). If such a stimulus is added, it is properly classified as a conditioned added punisher (regardless of what kind of stimulus it was paired with) and if such a stimulus is subtracted, it is properly classified as a conditioned subtracted punisher.

A review of the literature revealed no instances of properly classified uses of conditioned subtracted punishers in applied settings, instances in which the conditioned stimulus was actually subtracted.

Under many contingencies, the term conditioned punisher is likely adequate, but when behaviorologists, behavior analysts, behavior technologists, and animal trainers are under contingencies to provide a finer scale classification of such stimuli, the scientist or professional is urged to take care to classify the stimulus by whether it, itself, is added or subtracted in order to ensure clarity.

References

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The International Behaviorology Institute Syllabus for BEHG 110 Introduction to Behaviorology Terminology

James O’Heare

This syllabus provides course-specific information for a course that The International Behaviorology Institute (TIBI) offers. For guidance on enrolling, procuring required materials, and working through courses, as well as general school related information, see “General parameters and procedures for courses from The International Behaviorology Institute” available online at www.behaviorology.org or in the Spring 2015 issue (Volume 18, Number 2) of *Journal of Behaviorology*. Ledoux (2015) provided the core material for the course description.

Course Title: BEHG 110 Introduction to Behaviorology Terminology

Credits: 3 TIBI credits

Prerequisites: None

Course Format: Distance (online and offline options)

Time Frame: Commences upon enrollment. Self-paced within specified limits (estimated 150 hours; 3–15 weeks)

Professor: Assigned upon enrollment, with contact information

Required Resources

Holland, J. & Skinner, B. F. (1961). *The Analysis of Behavior*. New York: McGraw-Hill. (This is a programmed textbook.)

Shuler, M. & Ledoux, S. F. (2017). Behaviorology terminology adjustments for *The Analysis of Behavior* by Holland and Skinner. *Journal of Behaviorology*, 20 (1), 3–15.

If an updated version of this programmed text is available through the B. F. Skinner Foundation (at www.bfskinner.org) then it will serve as the only required material for this course. The update involves incorporating the adjustments contained in the update

article by Shuler and Ledoux (2017). Until that time, the course requires the original book, in which the student makes the adjustments contained in the update article. The student’s assigned professor will inform the student of which edition/version to secure. Students may enquire before enrolling in order to ensure they have the appropriate material when beginning their studies. Also upon enrollment, each student will receive a guide that past students have found helped them successfully navigate the programmed text and its response requirements.

Course Description

BEHG 110 Introduction to Behaviorology Terminology provides the student with the basic technical vocabulary of the discipline of behaviorology by *mainly conditioning terminology responses*, emphasizing its laboratory research methods and its experimentally derived principles, concepts, and practices.

Broadly, BEHG 110 covers the following topic areas:

- ❧ Methods include laboratory and single-subject designs, equipment, and measurement protocols;
- ❧ Principles include the antecedent and postcedent relations between behavior and its controlling variables (e.g., respondent and operant conditioning, evocative and function-altering stimulus controls, added and subtracted reinforcement and punishment, extinction, and simple reinforcement schedules);
- ❧ Concepts include a range of processes involved in environment-behavior relationships (e.g., emotions and feelings, stimulus and response generalization, overt and covert stimuli and responses, generalized and coincidental reinforcers, superstitious behavior, escape and avoidance, and establishing operations such as deprivation and satiation); and
- ❧ Practices include various components of interventions that change and expand behavior repertoires through contingency engineering (e.g., differential reinforcement, shaping, fading, chaining, modeling and imitation, and time out).

Course Objectives

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




- ✦ Define respondents and distinguish between conditioned and unconditioned respondents;
- ✦ Describe Pavlov's experiments on respondents;
- ✦ Define operants and differentiate operants from respondents;
- ✦ Define operant conditioning;
- ✦ Describe basic experimental arrangements involved in studying operant conditioning;
- ✦ Describe basic laboratory equipment used in operant experiments, including a cumulative recorder;
- ✦ List and describe factors affecting the speed of conditioning;
- ✦ Define coincidental selection and describe how it generates superstitious behavior;
- ✦ List and describe principles of shaping new operants;
- ✦ List and categorize schedules of reinforcement, including both continuous reinforcement and various kinds of intermittent reinforcement;
- ✦ Define stimulus control, including defining and differentiating stimulus generalization and stimulus evocation;
- ✦ Define deprivation and describe its effects on behavior;
- ✦ Define avoidance and escape functional behaviors;
- ✦ Define punishment, including secondary effects on behavior;
- ✦ Discuss the interpretation of cases that include complex behaviors;
- ✦ Explore the topic of "self-control"; and
- ✦ Discuss some prevalent behaviors such as inappropriate drug consumption and aggressive behaviors, as well as the behavioral treatment of problematic behaviors.

Assignment Sequence & Time Management

The following checklist provides students with the sequence in which the assignments are to be completed with pacing to fit into the 15-week semester time frame. Progressing more slowly than this schedule, assignments could easily get backed up to the point where insufficient time remains to complete them in a satisfactory manner. Students may use this sample schedule to help ensure that they remain on track. We estimate that each weekly assignment load will take approximately 9–10 hours to work through, assuming it takes 150 hours to work through all of the material. Students should expect and plan to put in at least 10 hours per week and use that to gauge whether they will need more or less time in the weeks to come. Students may check the box next to each assignment as they complete and submit it.

Check Week Resource Component

<input type="checkbox"/>	1	Updated <i>The Analysis of Behavior</i> study frames	<i>Part I</i>
<input type="checkbox"/>	2	Updated <i>The Analysis of Behavior</i> study frames	<i>Part II</i>
<input type="checkbox"/>	3	Updated <i>The Analysis of Behavior</i> study frames	<i>Part III</i>
<input type="checkbox"/>	4	Updated <i>The Analysis of Behavior</i> study frames	<i>Part IV</i>
<input type="checkbox"/>	5	Updated <i>The Analysis of Behavior</i> study frames	<i>Part V</i>
<input type="checkbox"/>	6	Updated <i>The Analysis of Behavior</i> study frames	<i>Part VI</i>
<input type="checkbox"/>	7	Updated <i>The Analysis of Behavior</i> study frames	<i>Part VII</i>
<input type="checkbox"/>	8	Updated <i>The Analysis of Behavior</i> study frames	<i>Part VIII</i>
<input type="checkbox"/>	9	Updated <i>The Analysis of Behavior</i> study frames	<i>Part IX</i>
<input type="checkbox"/>	10	Updated <i>The Analysis of Behavior</i> study frames	<i>Part X</i>
<input type="checkbox"/>	11	Updated <i>The Analysis of Behavior</i> study frames	<i>Part XI</i>
<input type="checkbox"/>	12	Updated <i>The Analysis of Behavior</i> study frames	<i>Part XII</i>

-  13 Updated *The Analysis of Behavior* study frames *Part XIII*
-  14 Updated *The Analysis of Behavior* study frames *Part XIV*
-  15 Updated *The Analysis of Behavior* study frames *Finish Study Frames*

Please contact TIBI at www.behaviorology.org with any questions about the content of this syllabus or the *General Parameters & Procedures for Courses from The International Behaviorology Institute*.

References

- Ledoux, S. F. (2015). Appendix 3 Addendum—Curricular courses and resources after 25 years (1990–2015). In S. F. Ledoux. *Origins and Components of Behaviorology—Third Edition* (pp. 314–326). Ottawa, Canada: BehaveTech Publishing. 📄

The International Behaviorology Institute Syllabus for BEHG 350 Behaviorology Philosophy and History

James O’Heare

This syllabus provides course-specific information for a course that The International Behaviorology Institute (TIBI) offers. For guidance on enrolling, procuring required materials, and working through courses, as well as general school related information, see “General parameters and procedures for courses from The International Behaviorology Institute” available online at www.behaviorology.org or in the Spring 2015 issue (Volume 18, Number 2) of *Journal of Behaviorology*. Ledoux (2015) provided the core material for the course description.

Course Title: BEHG 350 Behaviorology Philosophy and History

Credits: 3 TIBI credits

Prerequisites: BEHG 211 Introduction to Behaviorology II

Course Format: Distance (online and offline options)

Time Frame: Commences upon enrollment. Self-paced within specified limits (estimated 150 hours; 3–15 weeks)

Professor: Assigned upon enrollment, with contact information

Required Resources

Ledoux, S. F. (2015). *Origins and Components of Behaviorology—Third Edition*. Ottawa, Canada: BehaveTech Publishing. (ISBN 978-1-927744-08-6)
Various papers as assigned.

Ledoux, S. F. (2015). *Study Questions for Origins and Components of Behaviorology—Third Edition*. Canton, NY: ABCs. (ISBN 978-1-882508-37-2)

Skinner, B. F. (1974). *About Behaviorism*. New York: Random House. (ISBN 978-0-394-71618-3)

O’Heare, J. (in process). *Study Questions for About Behaviorism by B. F. Skinner*. Ottawa, Canada: BehaveTech Publishing.

Course Description

BEHG 350 Behaviorology Philosophy and History starts with an in-depth treatment of the philosophy of science, not only of the natural sciences in general (i.e., naturalism), but also of the behaviorology discipline in particular (i.e., radical behaviorism). The course traces the development of this philosophy since the early 1900s, comparing and contrasting it with other philosophies of the times, examining its role in the emergence of the behaviorology discipline, and considering its implications for experimental and applied work at the individual and cultural levels. Then, the course covers an in-depth treatment of the history of the emergence of behaviorology as a discipline.

Broadly, BEHG 350 covers the following topic areas:

Part 1: Philosophy

- ⌘ The philosophical position, tenets, and assumptions of radical behaviorism, the philosophy of natural science underpinning behaviorology;
- ⌘ Causes of behavior and the address of private/covert behavior;
- ⌘ Innate behavior and operant behavior;
- ⌘ Perception;
- ⌘ Verbal behavior and thinking;
- ⌘ Causes, reasons, and knowing;
- ⌘ Emotion, the “Self” and others; and
- ⌘ Control of behavior.

Part 2: History

- ⌘ Importance of a formal record of the activities within behaviorology before and during its initial development and throughout its history since that point;
- ⌘ Definition of behaviorology and how it differs from other disciplines, sub-disciplines, and fields that address the topic of behavior;
- ⌘ The scope of behaviorology;
- ⌘ Early historical events leading to the founding of behaviorology;
- ⌘ Subsequent historical events within behaviorology;
- ⌘ Issues driving the disciplinary independence movement;
- ⌘ The transition period to behaviorology and the relevance of contemporary professional organizations;
- ⌘ Changes in the infrastructure of behaviorology;
- ⌘ B. F. Skinner’s role in behaviorology;
- ⌘ The place for behaviorology within society and the natural science community; and
- ⌘ Elements and historical events surrounding developments of behaviorology.

Course Objectives






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

- & Define behaviorology and how it differs from other disciplines, sub-disciplines, and fields that address the topic of behavior in one way or another, as well as the scope of behaviorology;
- & Describe the philosophical position, tenets, and assumptions of radical behaviorism, the philosophy of natural science underpinning behaviorology, and differentiate that from those of other disciplines;
- & Identify the causes of behavior, both private and overt;
- & Differentiate between innate behavior and operant behavior;
- & Describe perception, emotion, verbal behavior, and thinking from a natural science perspective;
- & Explore the notion of a "self";
- & Identify the variables that control behavior;
- & Describe both distant and recent historical occurrences resulting in the emergence of behaviorology as a natural-science discipline;
- & Describe the historical events related to the transition from a shared history with other disciplines to the declaration of separation and independence from these disciplines, and discuss the reasons for such separation;
- & Relate B. F. Skinner's role in a natural science of behavior as well as the emergence of behaviorology as a separate and independent discipline from other, nonscientific disciplines; and
- & Discuss the infrastructure maintaining behaviorology as a discipline.

Assignment Sequence & Time Management


The following checklist provides students with the sequence in which the assignments are to be completed with pacing to fit into the 15-week semester time frame. Progressing more slowly than this schedule, assignments could easily get backed up to the point where insufficient time remains to complete them in a satisfactory manner. Students may use this sample schedule to help ensure that they remain on track. We estimate that each weekly assignment load will take approximately 9-10 hours to work through, assuming it takes 150 hours to work through all of the material. Students should expect and plan to put in at least 10 hours per week and use that to gauge whether they will need more or less time in the weeks to come. Students may check the box next to each assignment as they complete and submit it.

Check	Week	Resource	Component
<input type="checkbox"/>	1	<i>Origins and Components of Behaviorology and related Study Questions (SQs)</i>	2015 Preface p. vii, and "Intro Origins" paper pp. 3-24
<input type="checkbox"/>	2	<i>Origins and Components of Behaviorology and related SQs</i>	"Intro to Philosophy" paper pp. 25-32
<input type="checkbox"/>	3	<i>About Behaviorism and related SQs</i>	Introduction & Chapters 1-2 pp. 3-32
<input type="checkbox"/>	4	<i>About Behaviorism and related SQs</i>	Chapters 3-4 pp. 33-71
<input type="checkbox"/>	5	<i>About Behaviorism and related SQs</i>	Chapters 5-6 pp. 72-101
<input type="checkbox"/>	6	<i>About Behaviorism and related SQs</i>	Chapters 7, 8, & 9 pp. 102-147
<input type="checkbox"/>	7	<i>About Behaviorism and related SQs</i>	Chapters 10-11 pp. 148-188
<input type="checkbox"/>	8	<i>About Behaviorism and related SQs</i>	Chapters 12-13 pp. 189-218
<input type="checkbox"/>	9	<i>About Behaviorism and related SQs</i>	Chapters 14 pp. 219-251
<input type="checkbox"/>	10	<i>Origins and Components of Behaviorology ("Origins, Status, and Mission..." paper) and related SQs</i>	Chapters 1-2 pp. 33-59

-  II *Origins and Components of Behaviorology* (“Origins, Status, and Mission...” paper) Chapter 3 and related SQs pp. 60–73
-  I2 *Origins and Components of Behaviorology* (“Origins, Status, and Mission...” paper) Chapter 4 and related SQs pp. 74–108
-  I3 *Origins and Components of Behaviorology* (“Origins, Status, and Mission...” paper) Chapter 5 and related SQs pp. 109–145
-  I4 *Origins and Components of Behaviorology* (“Origins, Status, and Mission...” paper) Chapters 6–7 and related SQs pp. 146–169
-  I5 *Origins and Components of Behaviorology* and related SQs “Elements of History” paper pp. 259–296

Please contact TIBI at www.behaviorology.org with any questions about the content of this syllabus or the *General Parameters & Procedures for Courses from The International Behaviorology Institute*.

References

Ledoux, S. F. (2015). Appendix 3 Addendum—Curricular courses and resources after 25 years (1990–2015). In S. F. Ledoux. *Origins and Components of Behaviorology—Third Edition* (pp. 314–326). Ottawa, Canada: BehaveTech Publishing. 

The International Behaviorology Institute Syllabus for BEHG 430 Resolving Problem Animal Behavior

James O’Heare

This syllabus provides course-specific information for a course that The International Behaviorology Institute (TIBI) offers. For guidance on enrolling, procuring required materials, and working through courses, as well as general school related information, see “General parameters and procedures for courses from The International Behaviorology Institute” available online at www.behaviorology.org or in the Spring 2015 issue (Volume 18, Number 2) of *Journal of Behaviorology*.

Course Title: BEHG 430 Resolving Problem Animal Behavior

Credits: 3 TIBI credits

Prerequisites: BEHG 330 Companion Animal Training

Course Format: Distance (online and offline options)

Time Frame: Commences upon enrollment. Self-paced within specified limits (estimated 150 hours; 3–15 weeks)

Professor: Assigned upon enrollment, with contact information

Required Resources

O’Heare, J. (2016). *Problem Animal Behavior: Functional Assessment and Constructional Contingency Management Planning*. Ottawa, Canada: BehaveTech Publishing. (ISBN 978-1-927744-06-2)

O’Heare, J. (2016). *Assignment Book for Problem Animal Behavior: Functional Assessment and Constructional Contingency Management Planning by James O’Heare*. Ottawa, Canada: BehaveTech Publishing. (ISBN 978-1-927744-07-9)

O’Heare, J. (2016). Minimally aversive contingency management planning. *Journal of Animal Behavior Technology*, 6 (1), 19–35.

Rosales–Ruiz, J. (2016). Teaching dogs the clicker way. *Journal of Animal Behavior Technology*, 6 (1), 7–12. (Or O’Heare, 2017, below.)

Friedman, S.G. (2016). Tsk, no, eh–eh: Clearing the path to reinforcement with an errorless mindset. *Journal of Animal Behavior Technology*, 6 (1), 13–18. (Or O’Heare, 2017, below.)

O’Heare, J. (2017, forthcoming). Errorless training. *Journal of Animal Behavior Technology*, 7 (2). (Consult your professor to determine whether to use the above two articles or this article.)

The articles above may be accessed through the Association of Animal Behavior Professionals web site under “Journal” at <http://www.associationofanimalbehaviorprofessionals.com> and the most recent version of the minimally aversive contingency management planning strategy may be found at <http://www.associationofanimalbehaviorprofessionals.com/macmp.pdf>

O’Heare, J. (2014). The emergence and expansion of behaviorology in the companion animal field. *Journal of Behaviorology*, 17 (2), 3–6. This article may be accessed through the TIBI web site under “Journal” at www.behaviorology.org

Also required: Access, near the end of the course, to a companion animal, clicker, and treats.

Course Description

BEHG 430 Resolving Problem Animal Behavior applies behaviorology in the field of working with companion animals at an advanced level. BEHG 430 addresses (a) functional behavioral assessment of problematic behavior exhibited by companion animals including, but not limited to, dogs, cats, birds, and horses, and (b) the construction and implementation of non-coercive contingency management plans to resolve problematic behaviors. After reviewing basic principles of behavior, within the context of working with non-human animals, functional behavior assessment is covered in detail, including a functional diagnostic system. Forms are provided for student use. Next, the basic strategy for constructing a non-coercive contingency management plan based on the behavior replacement model is addressed, followed by coverage of behaviorological procedures applied to resolving problematic animal behavior. Teaching human clients to participate in intervention protocols is also covered. The material in this course is applicable to resolving problematic behavior of any non- or minimally language-exhibiting species (including wild animals and humans who exhibit few or no language skills). In the last two weeks of the course, the student will require access to a companion animal (and basic training supplies) for the final, hands-on, assignment.

Broadly, BEHG 430 covers the following topic areas:

- ✦ Definition and history of behaviorology, including an examination of radical behaviorism and natural science, as opposed to pseudoscience, and the different perspectives on behavior, including behaviorology, psychology, behavior analysis, ethology, and the medical model approach;
- ✦ Principles of behavior in the context of working with non-human animals;
- ✦ The problems associated with aversive conditioning practices and the use of constructional, graded, and errorless—rather than eliminative—approaches, including a strategy and set of guidelines for avoiding the use of aversive stimulation;
- ✦ Functional behavior assessment of problematic animal behaviors; and
- ✦ Strategies, tactics, and procedures in constructing and implementing comprehensive contingency management plans derived from functional assessment data.

Course Objectives

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

- ✦ Differentiate between natural sciences and pseudoscience, and between behaviorology, psychology, ethology, and the medical model approach to behavior;
- ✦ Define and relate elementary terms such as behavior, antecedent and postcedent stimulation, conditioning, response, response class, response class form, functional relation, contingency, added and subtracted and conditioned and unconditioned reinforcement and punishment, plus extinction, and provide unique examples of each;
- ✦ Define, contrast, and compare operant and respondent conditioning processes, including the procedures used to achieve each, and provide unique examples;
- ✦ Define the basic and compound schedules of reinforcement, including the different kinds of differential reinforcement and differential reinforcement-like procedures;
- ✦ Define and relate methods of transferring stimulus control via prompt fading and prompt delay procedures, and discuss generating behavior via prompts;
- ✦ Define function-altering stimulation, including motivating operations;
- ✦ Explain the importance of quantifying behavior, define and relate measures of behavior, including count, rate, relative frequency, duration, and magnitude, and describe measurement systems, as well as graphing methods;

- ✦ Define aversive stimulation and describe the problematic side effects it can generate, and describe strategies for avoiding the use of aversive training methods;
- ✦ Describe the functional assessment process, including the functional interview, direct observation, and functional analysis phases, and formulate a functional diagnosis of problematic behaviors;
- ✦ Describe how to establish formal behavior objectives and quantify behavior throughout the intervention, including the selections of measures of behavior and measurement systems;
- ✦ Describe how to construct a comprehensive contingency management plan that is constructional and minimally aversive, and based on sound behaviorological strategies, and derived from functional assessment data, including both antecedent and postcedent control procedures;
- ✦ Describe, contrast, and compare various differential reinforcement and differential reinforcement-like procedures, and identify how to select a procedure and apply it to specific cases; and
- ✦ Explain the role of emotional behavior in problematic contingencies, describe how to externalize the contingency analysis, and discuss how to design operant-based procedures that allow for potential by-product respondent counterconditioning.

Course Assignment

This assignment will provide the student with the opportunity to apply contingency management planning principles, strategies, and procedures to an actual behavior case, and then implement that plan in a safe manner. This assignment will likely take several hours in terms of planning, execution, and reporting, including several sessions working with the companion animal. It is advisable to plan for needing two weeks to complete the assignment and several days of access, during that interval, with the companion animal. The student will also require a “clicker”—a vocal conditioned reinforcer may be used, but is not recommended—and small quickly consumable treats.

Please note that no animal, be it human or otherwise, is to be caused harm or discomfort for this assignment, which is why the student is to utilize non-coercive methods throughout its completion. Furthermore, the “problem” behavior that the student will resolve is trained specifically for this purpose and is to be harmless. This assignment is not to be used to resolve an actual problematic behavior. If, for any unanticipated reason, this training task cannot be executed in safety, please

do not perform it and contact your professor so that he or she may advise on working around or otherwise mitigating the risk.

This assignment is broken down into three phases for convenience. Each of the three phases is explained below:

Phase 1. Start by training your companion animal to exhibit a harmless “problem” behavior. You may choose from the following options: (a) nose/beak touching a specific object; (b) waving a paw/foot; or (c) spinning in a circle. The problem behavior is to be maintained by added reinforcement (not subtracted reinforcement). Transfer stimulus control of the “problem” behavior to a common activity such as your entering the room, or opening or closing a door (and not to a vocal cue or hand motion). Once the subject exhibits the behavior six times in a row with a relative frequency of 100%, you may proceed to phase 2.

Phase 2. You now have a “problem” behavior. Because the target behavior and its rate are known, and the evocative and consequence stimuli are also known, no functional analysis will be required, but you do need to prepare a contingency analysis diagram of the “problem.” Decide on a measure for the behavior and a measurement system to track the behavior throughout the intervention. Construct and implement a contingency management plan to resolve this “problem,” bringing it to a relative frequency of 0% through ten trials. You must utilize an added reinforcement–emphasized plan emphasizing a constructional, graded, and errorless approach. Use the course materials to guide your choice of general strategy and procedures. Prepare a full contingency management plan including the formal behavior objective and description of how the procedures will be applied to the specific case in question. Then, implement the contingency management plan. It is recommended that you video record all sessions, either for your own edification or to help you evaluate your own performance. Also, your professor may require you to submit a video record of your work in this project. If so, she or he will provide you with guidelines.

Phase 3 (Reports). (a) As one report, present the contingency analysis diagram and the contingency management plan that you constructed and, as another report, (b) submit an essay describing how each component of the plan went and how you worked around any difficulties. These two reports are to be separate documents. Identify any areas you could have handled better in the design of the plan and/or in its implementation, including what you could do to make the intervention more efficient and effective. The essay report (i.e., not including the contingency analysis and contingency management plan document) should be no shorter than four pages and no longer than eight pages










(with one-inch margins, double spaced). This assignment will not be graded based on literal success with respect to meeting the formal behavior objective but rather on the appropriateness, accuracy, and completeness of the contingency management plan, and on the insightfulness of your explanation and analysis of your performance.

Assignment Sequence & Time Management

The following checklist provides students with the sequence in which the assignments are to be completed with pacing to fit into the 15-week semester time frame. Progressing more slowly than this schedule, assignments could easily get backed up to the point where insufficient time remains to complete them in a satisfactory manner. Students may use this sample schedule to help ensure that they remain on track. We estimate that each weekly assignment load will take approximately 9–10 hours to work through, assuming it takes 150 hours to work through all of the material. Students should expect and plan to put in at least 10 hours per week and use that to gauge whether they will need more or less time in the weeks to come. Students may check the box next to each assignment as they complete and submit it.

Check Week Resource Component

<input type="checkbox"/>	1	<p><i>Problem Animal Behavior</i> and related Study Questions (SQs) and <i>The Emergence and Expansion of Behaviorology in the Companion Animal Field</i> paper</p>	<p><i>Chapters 1–2</i> <i>All</i></p>
<input type="checkbox"/>	2	<p><i>Problem Animal Behavior</i> and related SQs</p>	<p><i>Chapter 3</i></p>
<input type="checkbox"/>	3	<p><i>Problem Animal Behavior</i> and related SQs</p>	<p><i>Chapter 4</i></p>
<input type="checkbox"/>	4	<p><i>Problem Animal Behavior</i> and related SQs</p>	<p><i>Chapter 5</i></p>
<input type="checkbox"/>	5	<p><i>Problem Animal Behavior</i> and related SQs</p>	<p><i>Chapter 6</i></p>
<input type="checkbox"/>	6	<p><i>Problem Animal Behavior</i> and related SQs</p>	<p><i>Chapter 7</i></p>

-  7 *Problem Animal Behavior*
and related SQs Chapter 8
-  8 *Problem Animal Behavior*
and related SQs Chapter 9
-  9 *Problem Animal Behavior*
and related SQs Chapter 10
-  10 *Problem Animal Behavior*
and related SQs Chapter 11
-  11 *Problem Animal Behavior*
and related SQs Chapter 12
-  12 *Problem Animal Behavior*
and related SQs Chapter 13
-  13 *Friedman article &*
Rosales–Ruiz article OR
O’Heare (2017) article
(Consult your professor...)
-  14 *Course Assignment Phases 1 & 2*
-  15 *Course Assignment Phases 2 & 3*

Please contact TIBI at www.behaviorology.org with any questions about the content of this syllabus or the *General Parameters & Procedures for Courses from The International Behaviorology Institute.* & &

The International Behaviorology Institute Syllabus for BEHG 480 Green Contingency Engineering

James O’Heare

This syllabus provides course-specific information for a course that The International Behaviorology Institute (TIBI) offers. For guidance on enrolling, procuring required materials, and working through courses, as well as general school related information, see “General parameters and procedures for courses from The International Behaviorology Institute” available online at www.behaviorology.org or in the Spring 2015 issue (Volume 18, Number 2) of *Journal of Behaviorology*. Ledoux (2015) provided the core material for the course description.

Course Title: BEHG 480 Green Contingency Engineering

Credits: 3 TIBI credits

Prerequisites: BEHG 211 Introduction to Behaviorology II

Course Format: Distance (online and offline options)

Time Frame: Commences upon enrollment. Self-paced within specified limits (estimated 150 hours; 3–15 weeks)

Professor: Assigned upon enrollment, with contact information

Required Resources

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)

Skinner, B. F. (1948/1976). *Walden Two*. New York: Macmillan. (Kindle ISBN: 978-0-87220-778-3; Paperback ISBN: 978-0-87220-778-3)

Ledoux, S. F. & two unknown authors. (1976–2012). *Study Questions for B. F. Skinner’s Walden Two*. (Provided by TIBI.)

Ledoux, S. F., Hallatt, D., & Hallatt, T. (2014). An Interview on Behaviorology Supporting a Sustainable Society. *Journal of Behaviorology*, 17 (1), 3–12.

ABAI. (2010). Special Section: The Human Response to Climate Change. *The Behavior Analyst*, 33 (2), 145–206. Available (at time of publication) at: <http://researchnews.osu.edu/archive/thebehavioranalyst-climatechange.pdf>

Recommended Resources

Ledoux, S. F. & Hallatt, D. (2014). *Interview: Behaviorology and Education for Green Engineering and Sustainable Living*. DVD: TIBI & PPF. (Available through TIBI at www.behaviorology.org).

Ledoux, S. F. (2014). *Running Out of Time—Introducing Behaviorology to Help Solve Global Problems*. Ottawa, Canada: BehaveTech Publishing. (ISBN: 978-1-927744-02-4) Students should already have this book from the prerequisite courses.

Sidman, M. (2001). *Coercion and its Fallout Revised Edition*. Boston, MA: Author’s Cooperative. (ISBN: 1-888830-01-8) Students may already have this book from previous courses.

Course Description

BEHG 480 Green Contingency Engineering addresses global problems in a format that allows the student to carry out considerable self-guided analyses and explorations into topics of particular interest to them within the context of an appropriate foundational science. After covering the role of coercion in prompting many levels of violence throughout society, from interpersonal and family interactions, through educational and workplace situations, to international and cultural relations—violence that interferes with problem solutions (see Sidman, 2001)—and while emphasizing non-coercive policies across all levels of society in solving problems, this course probes the range of actual and potential behaviorological applications to the behavior components of a wide range of global problems and solutions, starting with solutions reported in the natural science of behavior literature, and proceeding to design, and if possible test, not only extensions to such solutions but also new solutions to accessible aspects of as yet

unaddressed planetary or cultural problems. The focus is on improving cultures and the potential for human and planetary survival.

Broadly, BEHG 480 covers the following topic areas:

- ✦ The role of natural science in society, including its uses and misuses;
- ✦ The role of coercion in prompting many levels of violence throughout society;
- ✦ The range of actual and potential behaviorological applications to the behavior components of a wide range of global problems and solutions; and
- ✦ Non-coercive policies across all levels of society in solving global problems.

Course Objectives

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

- ✦ Analyze fictional works that explore the topic of the role of natural science in resolving global problems;
- ✦ Analyze the role of coercion in global problems and relate non-coercive approaches to resolving such problems;
- ✦ Research and relate the role of the discipline of behaviorology to resolving global problems; and
- ✦ Analyze a topic of interest related to global problems and behaviorological solution contributions in detail.

Written Topic-Paper Assignment

Consider this question: In what particular area are your contingencies compelling you to work with respect to behaviorology helping solve global problems, especially in terms of sustainability and in coordination with other natural scientists who are also working on solving these problems? An answer provides a topic for this assignment. Get approval for your topic preference by discussing it with your professor, which also provides you the opportunity to review your thesis statement, and even outline, before you begin writing.

According to the agreed upon topic, prepare an answer to that question of no fewer than ten pages and no greater than 20 pages, not including front matter and references, all double spaced with one-inch margins.

Your paper should explore the issue at a depth that, beyond what was presented in the course, can help others apply behaviorology as a contribution to solving one or another global problem, though perhaps only a local part of a problem. This will require research beyond the course texts. Cite five or more sources, at least one of which must be a source from outside this course.

Assignment Sequence & Time Management

The following checklist provides students with the sequence in which the assignments are to be completed with pacing to fit into the 15-week semester time frame. Progressing more slowly than this schedule, assignments could easily get backed up to the point where insufficient time remains to complete them in a satisfactory manner. Students may use this sample schedule to help ensure that they remain on track. We estimate that each weekly assignment load will take approximately 9–10 hours to work through, assuming it takes 150 hours to work through all of the material. Students should expect and plan to put in at least 10 hours per week and use that to gauge whether they will need more or less time in the weeks to come. Students may check the box next to each assignment as they complete and submit it.

Check Week Resource Component

<input type="checkbox"/>	1	<i>The Millennium Man</i> and related Study Questions (SQs) and always take notes for the writing assignment	<i>Prologue & Chapters 1–7</i>
<input type="checkbox"/>	2	<i>The Millennium Man</i> and related SQs, and always take notes for the writing assignment	<i>Chapters 8–14</i>
<input type="checkbox"/>	3	<i>The Millennium Man</i> and related SQs, and always take notes for the writing assignment	<i>Chapters 15–22</i>

<p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p>	<p><i>Walden Two</i> and related SQs, and always take notes for the writing assignment</p> <p><i>Walden Two</i> and related SQs, and always take notes for the writing assignment</p> <p><i>Walden Two</i> and related SQs, and always take notes for the writing assignment</p> <p><i>Walden Two</i> and related SQs, and always take notes for the writing assignment</p> <p><i>Interview article</i> (& DVD) and always take notes for the writing assignment</p> <p><i>Interview article</i> (& DVD) and always take notes for the writing assignment</p> <p><i>Special Section on the Human Response to Climate Change</i>, and always take notes for the writing assignment</p> <p><i>Special Section on the Human Response to Climate Change</i>, and always take notes for the writing assignment</p>	<p><i>Introduction & Chapters 1–8</i></p> <p><i>Chapters 9–19</i></p> <p><i>Chapters 20–27</i></p> <p><i>Chapters 28–36</i></p> <p><i>Qs&As 1–11</i></p> <p><i>Qs&As 12–22</i></p> <p><i>pp. 145–177</i></p> <p><i>pp. 179–206</i></p>	<p>12</p> <p>13</p> <p>14</p> <p>15</p>	<p><i>Parts of Ledoux’s “Running Out of Time” book, and possibly parts of Sidman’s “Coercion” book (i.e., use indexes to review points on applications to solving global problems) plus at least one source outside this course, always taking notes for the writing assignment</i></p> <p><i>Topic paper</i></p> <p><i>Topic paper</i> continued</p> <p><i>Topic paper</i> continued</p>	<p><i>Research & review many applicable parts</i></p> <p><i>Prepare outline & obtain paper topic approval</i></p> <p><i>Draft paper</i></p> <p><i>Finish & submit paper</i></p>
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Please contact TIBI at www.behaviorology.org with any questions about the content of this syllabus or the *General Parameters & Procedures for Courses from The International Behaviorology Institute*.

References

Ledoux, S. F. (2015). Appendix 3 Addendum—Curricular courses and resources after 25 years (1990–2015). In S. F. Ledoux. *Origins and Components of Behaviorology—Third Edition* (pp. 314–326). Ottawa, Canada: BehaveTech Publishing.

In Tune with TIBI: An Open Letter

John B. Ferreira

The International Behaviorological Institute (TIBI) is a one-of-a-kind professional organization dedicated to representing and advancing the philosophical, conceptual, analytical, experimental, and technological facets of the natural science of human behavior known as Behaviorology. TIBI is a non-profit organization that is committed to principles that are relevant to all humans who would seek a better life. Some of its more telling purposes are to: advance research and applied analysis of the effects of bio-behavioral variables on individual and cultural manifestations; develop a verbal community of Behaviorologists; assist in programs and departments of Behaviorology at academic institutions for teaching the philosophical foundations of radical Behaviorism, scientific analysis and methodologies, and technological procedures; encourage the use of the principles of Behaviorology as an essential scientific foundation for behavior-related work within all fields of human activities; cooperate with other scientific disciplines and technologies where their interests overlap with those of Behaviorology; and communicate to the general public the importance of the science of Behaviorology for the development, well-being, and survival of humankind.

Clearly, the mission of and purposes for TIBI suggests a nearly insurmountable litany of tasks and challenges which should serve as boundless sources of positive reinforcement for those who are dedicated to the science of Behaviorology. One of the more effective tools for dispensing information regarding the mission and purpose of TIBI is its *Journal of Behaviorology* (JoB). It is a hardcopy publication that is available to members and to interested others (go to www.behaviorology.org).

The *Journal of Behaviorology* (hardcopy) provides countless opportunities to participate in the continuing advancement of Behaviorology by accepting publications regarding research articles (experimental and applied),

philosophical presentations especially within the radical behaviorism realm, position papers, letters to the editor, announcements of coming events, book reviews, TIBI-related organizational information, syllabi of courses in Behaviorology, and other information relevant to the furtherance of the science of Behaviorology. The *Journal of Behaviorology* should be retained as a viable resource that can be made conveniently available in locales such as one's office or workplace, vehicle, briefcase, backpack, and as a 'traveling companion.' The *Journal of Behaviorology* can be used as a visible tangible presence in clinic waiting rooms, secondary school libraries, classrooms, teachers' lounges, college and university libraries, and for academic department postings, discussions with colleagues and interested others, as well as for classroom presentations, assignments and seminars. In addition, the *Journal of Behaviorology* is readily available as a source of references, introduction and exposure for serendipitous encounters with friends, colleagues, neighbors, family members, students, and professionals in all disciplines.

As members of TIBI, we should be willing to devote considerable efforts to recruit future members who would support this unique foundational organization through academic, social, technological, and financial contributions. We must never lose sight of these needs and objectives which require considerable energy and resources while at the same time offering a never-ending source of reinforcing contingencies. 'Fame and fortune' are elusive at best and function as low probability by-products of our energy expenditures and seldom serve as a long-term behavior supporting contingency. Our focus must remain on the development and advancement of the natural science of human behavior!

One of the founders of TIBI has been heard to prompt anyone within ear-shot that we must always work "...toward a better future" and there is no better way than providing humankind the means of using the principles and technology of a science of behavior to help solve global problems while improving the lives of the inhabitants of this planet.

Sincerely,

John B. Ferreira, Ph.D., L.P.C., C.D.L.B.
TIBI Board of Directors, Chairperson ☞

Submission Guidelines

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

To submit items, contact the Editor for Volumes 18, 19, 20 (who will direct you to the new editor for Volumes 21, 22, 23):

Dr. James O’Heare
Companion Animal Sciences Institute
1333 Rainbow Crescent
Ottawa Ontario K1J 8E3
CANADA
E-mail: jamesoheare@gmail.com

Considerations

The Journal entertains experimental or applied research papers and theoretical or conceptual or literature review articles (all of which will have at least three reviewers) as well as Book Reviews, On Terms, In Response, and program descriptions (two reviewers) plus letters, memorials, etc. The members of the TIBI Board of Directors constitute the basic Editorial Review Board (ERB) on which others can serve as members or guests. Authors will not be identified to reviewers and reviewers will not be identified to authors, except when they opt to sign their reviews. (Some reviewers prefer to sign, usually in acknowledgement of the additional assistance that they are prepared to offer the author.) Each reviewer will provide constructive feedback as well as a recommendation: accept, or accept with revisions, or revise and resubmit, or reject.

Based on the set of reviewer recommendations and comments, the Editor will convey the feedback and summary decision to the author(s). With assistance from members of the ERB, the Editor will also provide authors with guidance to shape the best manuscripts possible in a reasonable time frame.

All accepted pieces must contribute to the behaviorology discipline (e.g., by relating to or clarifying or expanding some aspect of the discipline such as the philosophical, conceptual, theoretical, experimental, applied, or interdisciplinary aspects). Accepted pieces must also be crafted in ways that convey as much consistency as possible with the principles, concepts, practices, philosophy, and terminology of the discipline.

Research paper authors (a) must obtain any necessary permissions or approvals from the Human-Subjects

Review Committee of their affiliated campus or agency, and (b) must comply with the usual ethical standards relating to all research and experimental subjects. All authors are required to disclose for publication any possible conflicts of interest. Also, congruent with past practice, exclusions of important or relevant content for length reduction will be resisted as much as possible.

Mechanics

Authors are encouraged to contact the editor to discuss their manuscript prior to submission and to answer questions and clarify procedures and processes. Initially, a paper should be submitted to the editor by email as a PDF attachment.

The email will contain a cover letter. This letter should describe the article, and the work or history behind it, and will include the author name(s), affiliation(s), addresses, phone numbers, paper title, footnotes (e.g., acknowledgements, disclosures, and email or other contact information for publication) as well as comprehensive contact information on up to six suggestions for possible reviewers.

The PDF document (a) should have *only* the author’s name in the file name (which the Editor will record with the assigned manuscript number while replacing the name *with* the number in the file name before sending the manuscript PDF file out to reviewers), (b) should *use the standard style exemplified by papers in past issues* of the journal (as TIBI is uncommitted to any particular, formal “style”), and (c) should come from a Word-format document set in 12 point type on 24 point leading (i.e., double spaced) with 1.25 inch side margins and 0.75 inch top and bottom margins, excluding the title header and page-number footer (i.e., all text parts of the piece—including tables, figures, photos, etc.—fit in text blocks that are 6.0 inches wide and 9.5 inches tall, with the title header just above this block and the page-number footer just below this block). These measurements are for US letter size paper; for other paper sizes, the text block size and top margin remain the same while the other margins will change as needed. The text parts of the paper start with the title, then an abstract, and a list of “Key Words” for indexing purposes, followed by the body of the piece plus references and figures or tables. *Work all footnote material into the text.* Upon acceptance, papers should be provided to the editor as a Word-format document along with a new PDF of the Word file (to verify the accuracy of content transfers during page-layout operations).

Note: Authors’ views need not coincide with official positions of TIBI, and authors retain copyrights. ☺

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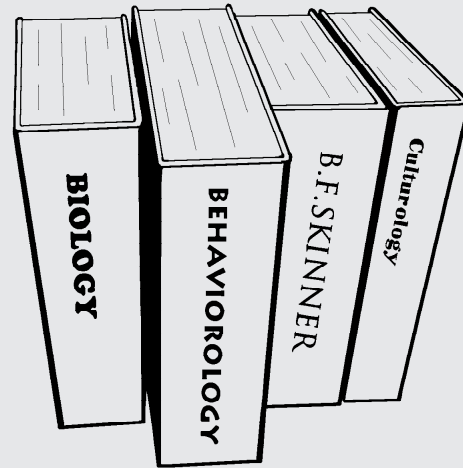
You can find a wide selection of useful articles, many from *Behaviorology Today / Journal of Behaviorology*, in Adobe PDF format. (If you need it, you will find a button to click, for a free download of Adobe’s Acrobat Reader software, in the “First 10-years Archive” part of the site.) Also in the “First 10-years Archive,” the articles are organized on several topical category pages (e.g., contributions to parenting and education, book reviews, and behaviorology around the world). The rest of the site features a single PDF for each full issue of both *Behaviorology Today* and *Journal of Behaviorology*. Other selections feature descriptions of numerous behaviorology texts and study-question books, TIBI’s certificate programs, course syllabi, and links to some other helpful related web sites. Explore! ☺

Back Issues & Donations

Some back issues of the Journal are available; the cost is US\$20 each, which includes air-equivalent postage. To place an order: Photocopy, fill out, and send in the “membership” form on a later page of nearly every Journal issue; check the “back issues” box, and list the volume and number of each back issue that you are ordering. Mail the form, with a check for the correct amount, in US dollars made payable to TIBI, to the address on the form.

Donations/Contributions are also welcome, and are tax-deductible as TIBI is non-profit (under 501-C-3). ☺

ABOUT
BEHAVIOROLOGY,
TIBI, AND
Journal of 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 BEHAVIOROLOGICAL–ENGINEERING TECHNOLOGIES APPLICABLE TO BEHAVIOR–RELATED CONCERNS IN ALL FIELDS INCLUDING CHILD REARING, EDUCATION, EMPLOYMENT, ENTERTAINMENT, GOVERNMENT, LAW, MARKETING, MEDICINE, AND SELF–MANAGEMENT.

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

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

TIBI/TIBIA Purposes*

T_I**B**_I, 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 also dedicated to expanding and disseminating the behaviorological literature at least through the fully peer-reviewed *Journal of Behaviorology* (originally called *TIBI News Time* and then *Behaviorology Today*) with editors being appointed by the TIBI Board of Directors, usually from among the TIBIA Advocate members. 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 the purposes of TIBI/TIBIA. These activities include (a) encouraging and assisting members to host visiting scholars who are studying behaviorology as well as holding conventions and conferences; (b) enabling TIBI faculty to arrange or provide training for behaviorology students; and (c) providing TIBI certificates to students who successfully complete specified behaviorology curriculum requirements). And TIBI is a professional organization dedicated to representing and developing the philosophical, conceptual, analytical, experimental, and technological components of the discipline of behaviorology, the comprehensive natural science discipline of the functional relations between behavior and independent variables including determinants from the environment, both socio-cultural and physical, as well as determinants from the biological history of the species. Therefore, recognizing that behaviorology's principles and contributions are generally relevant to all cultures and species, the purposes of TIBI and TIBIA 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.

*Adapted from the 2017–updated TIBI By-Laws. ☺

Syllabus Directory*

The most recent issue of *Journal of Behaviorology* that features a Syllabus Directory contains two lists of TIBI's current course syllabi. These lists show where to find the most up-to-date versions of these syllabi in number, title, and content. The first list organizes the syllabi by numerical course number. The second list organizes the syllabi by the chronological volume, number, and pages where you can find each course syllabus.

Each of these syllabi contain only information explicit to a particular course. You will find all the relevant generic information in the article, *General Parameters & Procedures for Courses from The International Behaviorology Institute*, in *Journal of Behaviorology*, Volume 18, Number 2 (Spring, 2015) pp. 3–6.

Current Syllabi by Course Number

- BEHG 100: *Child Rearing Principles and Practices*;
Volume 19, Number 2 (Fall 2016) 3–5.
- BEHG 110: *Introduction to Behaviorology Terminology*;
Volume 20, Number 1 (Spring, 2017) 19–21.
- BEHG 210: *Introduction to Behaviorology I*;
Volume 19, Number 2 (Fall 2016) 6–8.
- BEHG 211: *Introduction to Behaviorology II*;
Volume 19, Number 2 (Fall 2016) 9–12.
- BEHG 330: *Companion Animal Training*;
Volume 19, Number 2 (Fall 2016) 13–15.
- BEHG 340: *Introduction to Verbal Behavior*;
Volume 19, Number 2 (Fall 2016) 16–18.
- BEHG 350: *Behaviorology Philosophy and History*;
Volume 20, Number 1 (Spring, 2017) 22–24.
- BEHG 405: *Basic Autism Intervention Methods*;
Volume 19, Number 2 (Fall 2016) 19–21.
- BEHG 425: *Classroom Management and Preventing School Violence*;
Volume 19, Number 2 (Fall 2016) 22–24.
- BEHG 430: *Resolving Problem Animal Behavior*;
Volume 20, Number 1 (Spring, 2017) 25–28.
- BEHG 435: *Performance Management and Preventing Workplace Violence*;
Volume 19, Number 2 (Fall 2016) 25–27.
- BEHG 455: *Behaviorological Thanatology and Dignified Dying*;
Volume 19, Number 2 (Fall 2016) 28–31.
- BEHG 465: *Behaviorological Rehabilitation*;
Volume 19, Number 2 (Fall 2016) 32–34.

- BEHG 480: *Green Contingency Engineering*;
Volume 20, Number 1 (Spring, 2017) 29–31.
- BEHG 512: *Advanced Behaviorology I*;
Volume 19, Number 2 (Fall 2016) 35–37.
- BEHG 513: *Advanced Behaviorology II*;
Volume 19, Number 2 (Fall 2016) 38–40.
- BEHG 541: *Advanced Verbal Behavior*;
Volume 19, Number 2 (Fall 2016) 41–43.✻

Current Syllabi by Volume & Number

- BEHG 100: *Child Rearing Principles and Practices*;
Volume 19, Number 2 (Fall 2016) 3–5.
- BEHG 210: *Introduction to Behaviorology I*;
Volume 19, Number 2 (Fall 2016) 6–8.
- BEHG 211: *Introduction to Behaviorology II*;
Volume 19, Number 2 (Fall 2016) 9–12.
- BEHG 330: *Companion Animal Training*;
Volume 19, Number 2 (Fall 2016) 13–15.
- BEHG 340: *Introduction to Verbal Behavior*;
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Volume 20, Number 1 (Spring, 2017) 25–28.
- BEHG 480: *Green Contingency Engineering*;
Volume 20, Number 1 (Spring, 2017) 29–31.✻

*All of these TIBI course syllabi were either updated in 2016 or new in 2017. Many have older version appearing in earlier issues under different course numbers and/or titles; see the *Syllabus Directory* in Volume 18, Number 1 (Spring 2015) for details.

TIBIA Membership Costs & Criteria & Benefits

The intrinsic value of TIBIA membership rests on giving the member status as a contributing part of an organization helping to extend and disseminate the findings and applications of the natural science of behavior, behaviorology, for the benefit of humanity. The levels of TIBIA membership include one “free” level and four paid levels, which have increasing amounts of basic benefits. The four annual paid membership levels are Student, Affiliate, Associate, and Advocate. The Student and Affiliate are non-voting categories, and the Associate and Advocate are voting categories. 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. Here are all the membership levels and their criteria and basic benefits (with dues details under *TIBIA Membership Cost Details* on the application-form page):

Free-online membership. Online visitors receive access (a) to past *Behaviorology Today* and *Journal of Behaviorology* articles and issues, (b) to accumulating news items, (c) to Institute information regarding TIBI Certificates and course syllabi, (d) to selected links of other organizations, and (e) to other science and organization features.

\$20 Behaviorology Student membership (requires completed paper application, co-signed by department chair or advisor, and annual dues payment). Admission to TIBIA in the Student membership category is open to all undergraduate or graduate students in behaviorology or in an acceptably appropriate area. Benefits include *all* those from the previous membership level plus these: (a) a subscription to—and thus immediate postal delivery of—each new paper-printed issue of *Journal of Behaviorology* (ISSN 1536-6669), (b) access to special organizational activities (e.g., invitations to attend and participate in, and present at, TIBI conferences, conventions, workshops, etc.) and (c) access to available TIBIA member contact information.

\$40 Affiliate membership (requires completed paper application and annual dues payment). Admission to TIBIA in the Affiliate membership category is open to all who wish to follow disciplinary developments, maintain

contact with the organization, receive its publications, and participate in its activities, but who are neither students nor professional behaviorologists. Benefits include *all* those from the previous levels plus these: Access both to additional activity options at the interface of their interests and behaviorology, and to advanced membership levels for those acquiring the additional qualifications that come from pursuing behaviorology academic training. On the basis of having earned an appropriate degree or TIBI Certificate, Affiliate members may apply for, or be invited to, Associate membership.

\$60 Associate membership (requires completed paper application and annual dues payment). This level is only available to qualifying individuals. Admission to TIBIA in the Associate membership category is open to all who are not students, who *document a behaviorological repertoire at or above the masters level* (such as by attaining a masters-level TIBI Certificate or a masters degree in behaviorology or in an accepted area) and who maintain a good record—often typical of “early-career” professionals—of professional activities or 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. Benefits include *all* those from the previous levels plus TIBIA voting rights, and access to contributing by accepting appointment to a TIBIA or TIBI position of interest. On the basis of documenting a behaviorological repertoire at the doctoral level, an Associate member may apply for, or be invited to, Advocate membership.

\$80 Advocate membership (requires completed paper application and annual dues payment). This level is only available to qualifying individuals. Admission to TIBIA in the Advocate membership category is open to all who are not students, who *document a behaviorological repertoire at the doctoral level* (such as by attaining a doctoral-level TIBI Certificate or a doctoral degree in behaviorology or in an accepted area), who maintain a good record of professional activities or accomplishments of a behaviorological nature, and who demonstrate a significant history—usually typical for experienced professionals—of work supporting the integrity of the organized, independent discipline of behaviorology including its organizational manifestations such as TIBI and TIBIA. Benefits include *all* those from the previous levels plus access to contributing by accepting election to a TIBIA or TIBI position of interest.☺

TIBIA Membership Cost Details

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 and economies. Thus, the annual dues for each membership (or other) category are:

CATEGORY	DUES (in US dollars)*
Student member	The lesser of 0.1% of annual income, or \$20.00

Affiliate member	The lesser of 0.2% of annual income, or \$40.00
Associate member	The lesser of 0.3% of annual income, or \$60.00
Advocate member	The lesser of 0.4% of annual income, or \$80.00

Member of Board of Directors:
The lesser of 0.6% of annual income, or \$300.00

*Minimums: \$20 Board Member; \$10 others

(Retired Associate, Advocate, or Board Members:
... 50% less)

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(FOR CONTRIBUTIONS, A FORM ENSURES ACKNOWLEDGEMENT BUT IS NOT REQUIRED.)

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*Subscriptions are US\$40 annually, the same as affiliate membership.

**Back issues: US\$20 each.

***For Student Membership:

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

Name & Signature of advisor or Dept. Chair: _____

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