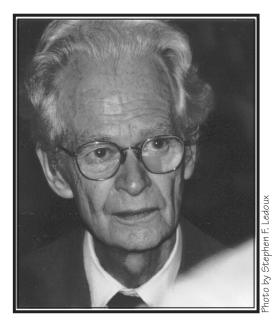
An Introduction to Verbal Behavior— Second Edition



Burrhus Frederic Skinner (1904–1990)

Author of Verbal Behavior (At a convention in 1982)

Norman Peterson & for this Second Edition Stephen F. Ledoux



Copyright © 2014 by Norman Peterson & Stephen F. Ledoux US\$50 ISBN 978–1–882508–38–9

An Introduction to Verbal Behavior—Second Edition

Norman Peterson, Ph.D. &, for this Second Edition, Stephen F. Ledoux, Ph.D.

Published by **ABCs** of Canton, NY, USA.

ISBN 978-1-882508-38-9 (comb binding)

Cover design and photo by Stephen F. Ledoux Printed in the United States of America

Improved printing number: >10 9 8 7 6 5 4 3 2 1 0 Nearest year of printing: >2050 2040 2025 2020 2014 2030

Copyright Notice/Warning:

Copyright © 2014 by Norman Peterson & Stephen F. Ledoux. All rights reserved. This book and its contents are protected by the federal copyright laws of the United States of America. Reproduction or copying of these materials, by *any* means whatsoever, in whole or in part, without the express, hard–copy, written permission of the copyright holder is prohibited and may subject the violator(s) to civil sanctions, criminal penalties, or both. Permission to reprint small parts for worthy purposes may be requested by writing either author. Any funds that sales of this work produce in excess of costs are split between Drs. Peterson and Ledoux.

Contents

- ✤ Preface to the Second Edition ... v
- ✤ Preface to the First Edition ... vi
- ₹ Scope ... vii
- 🛪 Format ... viii
- 🏽 Prerequisite Terminology ... ix
- 🌾 On Typography & Author Contact ... x 🕏

Chapter 1: Introductory Concepts ... 1

Mediated Reinforcement ... 2 Verbal Behavior ... 5 Types of Controlling Variables ... 9 Verbal Stimulus ... 10 Establishing Operation ... 13 Point-to-Point Correspondence ... 17 Response Product ... 21 Formal Similarity ... 25 Formal and Thematic Control ... 29

Chapter 2: Elementary Relationships ... 33

Elementary Verbal Relationships ... 34 Echoic Behavior ... 35 Copying Text ... 39 Taking Dictation ... 43 Textual Behavior ... 47 Verbal Relationships with Thematic Control ... 51 The Intraverbal ... 52 The Tact ... 55 The Mand ... 59 A Comparison of the Mand and the Tact ... 63 The Audience ... 64 Other Forms of Verbal Behavior ... 69 Chart 2–1a & Chart 2–1b ... 70 & 71

Chapter 3: Extensions of Verbal Behavior ... 73

Stimulus Features ... 74
A Classification of Three Different Types of Extension ... 77
Generic Extension ... 78
Metaphorical Extension ... 81
Metonymical Extension ... 85
Mand Extension ... 89
Private Stimuli ... 90
Ways of Teaching Responses to Private Stimuli ... 92
Public Accompaniment / Collateral Stimuli ... 92
Collateral Responses ... 93
Common Properties ... 97
Response Reduction ... 98

Chapter 4: Multiple Controlling Relationships ... 99

Multiple Control ... 99 Multiple Controlling Variables ... 100 Multiple Responses ... 101 Fragmentary Sources of Strength ... 105 Supplementary Stimulation ... 109 Prompt/Probe ... 113 Distorted and Impure Tacts ... 117 Fragmentary Recombination ... 118 Word Blends and Phrase Blends ... 119 Standard and Non–Standard Forms ... 120 Analyzing Humor and Literature ... 121 Main Thematic Source ... 122 Secondary Sources of Strength (including in Song Lyrics, Poetry, and Humor) ... 125

Chapter 5: Building on the Elementary Relationships ... 133

Secondary Verbal Behavior ... 134 The Autoclitic Tact ... 136 The Autoclitic Mand ... 143 \$

≈ Glossary ... 147

✤ Annotated Bibliography ... 157

* Proof of Ownership Form ... 165 🕫

Preface to the Second Edition

 \mathcal{D} uring the last several decades my preferred text, for introducing students to verbal behavior analysis in courses from the Far East to the Mid West, remained the first edition of Peterson's An Introduction to Verbal Behavior. Of course, in that same time frame, the natural science of behavior continued to develop under various names. As an undergraduate I first heard of it as "operant psychology," from the period when its adherents and psychologists shared their history in the same academic work units (see Fraley & Ledoux, 2002, in the Bibliography, although its third edition is scheduled for release in early 2015). An additional label—behavior analysis—became common by the early 1970s, and developed into the far more widely recognized ABA—Applied Behavior Analysis. Meanwhile the label, behaviorology, began in the late 1970s, and in 1987, a number of behavior analysts and applied behavior analysts formally adopted this label as the name for their basic and applied natural science of behavior. David Schoonmaker, the editor of American Scientist, summarized this development when he introduced the article, "Behaviorism at 100," by saying, "Over its second fifty years, the study of behavior evolved to become a discipline, behaviorology, independent of psychology" (see Ledoux, 2012).

Over those intervening years, some systematizing changes in basic behaviorological-science terminology developed, and I incorporated these into my Running Out of Time... book (Ledoux, 2014), which included a chapter (Chapter 20) that covered some basics of verbal behavior analysis and its applications. While that book was in progress, and in anticipation of my course on verbal behavior analysis again appearing on the schedule for a coming semester, I consulted with Norm Peterson regarding incorporating these terminology changes into his An Introduction to Verbal Behavior book so that students, already familiar with the latest terminology from a text that first appeared in 2014, would face consistency rather than confusion regarding terminology from a text that first appeared in 1978. Dr. Peterson consented to let me make those terminology adjustments, and the result is An Introduction to Verbal Behavior—Second Edition, the book that you hold in your hands. This second edition also not only expands the list of prerequisite terms (as over the years knowledge of these other terms proved valuable to students in their first full course on verbal behavior) but also adds a glossary and bibliography, which makes the terms, and further study, easier to manage.

Lastly, note that the sections on *Scope*, and *Format*, and *Prerequisite Terminology* all appear in this second edition as separate sections after the *Preface to the First Edition*, just as they did in the first edition. However, the *Scope* and *Prerequisite Terminology* sections each include a little more material here in the second edition.

Stephen F. Ledoux Canton NY USA July 2014 53

Preface to the First Edition

Behavior Associates, of Grand Rapids, MI, published the first edition of *An Introduction to Verbal Behavior* in 1978.

This book grew out of several semesters of watching undergraduate and graduate students struggle with a very difficult but very important book. The book was *Verbal Behavior* by B. F. Skinner, and it presented a radically different approach to the analysis of language. That book had two major components. First, it introduced a set of new concepts for classifying and analyzing verbal behavior. Second, it then used these new concepts to develop an innovative and profound analysis and interpretation of factors that account for the behavior of an individual speaker. However, much of the power and intricacies of that analysis were lost if the student did not have mastery over the introductory material. The present text is an attempt to provide a way for students to master, quickly and thoroughly, that introductory material.

This book could not have been finished without the assistance of many individuals. Richard W. Malott gave the push that turned an experiment in writing programmed materials into the task of writing this book. A special thanks goes to Jack Michael who provided the direction and encouragement that permitted the task to be accomplished. Linda Parrott, Greg Strikeleather, Marge Peterson, Richard Bears, all spent many hours reviewing and criticizing earlier drafts. Kelly Dennis deserves the equivalent of a purple heart for typing until it hurt to meet publication deadlines. Patti Cherpas and my wife, Valda, deserve thanks for editing various parts of the manuscript. Valda also deserves a special thanks for believing that I could finish this and not allowing me to believe otherwise when the end seemed so far away.

Norman Peterson, Ph.D.

1978 VS

This text presents the basic concepts developed by B. F. Skinner in *Verbal Behavior* (1957). It is intended only as an introduction and as such omits detailed explanations of exceptions, ambiguities, and controversies. In addition, many of the implications of the analysis are not presented. What is presented are all the basic concepts that were introduced in *Verbal Behavior* with the hope that this book's conditioning of these concepts in student repertoires will leave these students having a much easier time grasping more complex and sophisticated analyses such as those presented by Skinner.

This text was designed to be read by someone who has already had an introduction to behavior, and contingency engineering, terminology. Basic behavioral concepts are reviewed only briefly. For readers without this background, reading one of the following texts is recommended.

- Reese, E. P., Howard, J., & Reese, T. W. (1978). *Human Behavior: Analysis and Applications*. Dubuque, 1A: William C. Brown Co.
- Whaley, D. L. & Malott, R. W. (1971). *Elementary Principles of Behavior*. Englewood Cliffs, NJ: Prentice–Hall.

Or, consider this more recent text, which covers the terminology of basic principles, methods, concepts, philosophy, history, and applications regarding behavior, and the natural science of behavior, including environment and contingency engineering, while also containing a chapter that reviews some of the content of *Verbal Behavior*:

Ledoux, S. F. (2014). *Running Out of Time—Introducing Behaviorology to Help Solve Global Problems.* Ottawa, CANADA: BehaveTech Publishing.

(Find further details on that last book, and related topics, at www.behaviorology.org, which is the web site of a professional organization, TIBI, *The International Behaviorology Institute,* including a section with articles on verbal behavior under "First 10 Years Archive.")

Format

This text is a type of programmed text. It is based upon an emerging approach called concept analysis programing. For a detailed explanation of concept analysis programing, the reader should study Markle and Termann's *Really Understanding Concepts* (1969; see the Bibliography for full reference information). The presentation of each concept in this text follows a similar format. First the concept is analyzed and defined in terms of defining and irrelevant features. Irrelevant features are identified to prevent the student from focusing on features of examples of verbal behavior that play no role in identifying that example as either being or not being an instance of the concept being studied.

Following that, the concept is discussed by presenting a number of examples of verbal behavior illustrating the concept and also some examples to show what the concept does not include. Finally, the student is presented with a series of samples of verbal behavior and asked to identify the concept each illustrates. Detailed answers are provided for these study questions.

Prerequisite Terminology

 ${\mathcal T}$ his text is biased toward success when the student begins it after mastering these terms:

STIMULUS: A stimulus is a physical energy change capable of affecting an organism through one of its receptors, including Photoreceptors, phonoreceptors, chemoreceptors (gustatory and olfactory), mechanoreceptors (touch), thermoreceptors, and free nerve endings.

EVOCATIVE STIMULUS: A stimulus in the presence of which a given response has a history of being reinforced.

REINFORCEMENT: A stimulus following a response which increases or strengthens the likelihood of that response occurring in the future under similar conditions (i.e., a stimulus the occurrence of which, after a response, makes the stimulus that evokes the response function more effectively).

PUNISHMENT: A stimulus following a response which decreases or weakens the likelihood of that response occurring in the future under similar conditions (i.e., a stimulus the occurrence of which, after a response, makes the stimulus that evokes the response function less effectively).

CONTROLLING VARIABLE: An environmental event, most commonly an evocative stimulus, which controls or determines (i.e., produces or compels, although observationally only in a temporally contiguous fashion) that a given response will occur.

Also, students will find that mastery of several other terms will also be helpful, including these terms (which also are in the Glossary):

DEPRIVATION	AVERSIVE STIMULATION
CONDITIONED REINFORCEMENT	GENERALIZED REINFORCEMENT
DIFFERENTIAL REINFORCEMENT	SHAPING
EXTINCTION	IMITATION
STIMULUS GENERALIZATION	RESPONSE GENERALIZATION
STIMULUS CLASS	RESPONSE CLASS

The Glossary also contains a more complete list of terms, and more detailed definitions.

On Typography & Author Contact

This book is set in the Adobe Garamond and Adobe Garamond Expert collections of typefaces. In addition, a valuable basis for the typographic standards of this work deserves acknowledgment. As much as possible, this book follows the practices described in two highly recommended volumes by Ms. Robin Williams (both of which Peachpit Press, in Berkeley, CA, USA, publishes). One is the 1990 edition of *The Mac is Not a Typewriter*. The other is the 1996 edition of Beyond the Mac is Not a Typewriter. For example, on page 16 of the 1990 book, Williams specifies practices regarding the placement of punctuation used with quotation marks, an area in which some ambiguity has existed with respect to what is "proper." In addition the present book follows the advice in these books about avoiding "widows" (which is the name for leaving less than two words on the last line of a paragraph) and "orphans" (which is the name either for leaving the first line of a paragraph alone at the bottom of a page, or for leaving the last line of a paragraph alone at the top of the next page). Also, since some confusing alternatives remain regarding the use of hyphens and dashes, this book would simply limit hyphens to separating the parts of words that break at a line end (although this book never broke words at line ends) while "en dashes" most commonly separate the whole words of compound adjectives, and "em dashes" set off multiple-word-a compound adjective with an en dash—phrases or clauses.

Address correspondence regarding this book to either author. Contact the first author at norman.peterson@comcast.net and contact the second author at ledoux@canton.edu. For more information, visit www.behaviorology.org which is the web site of TIBI (The International Behaviorology Institute). \$