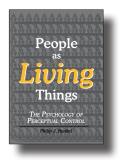
People as Living Things: The Psychology of Perceptual Control

Review by Len Lansky 1925—2009

Emeritus Professor of Psychology at the University of Cincinnati



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By Philip J. Runkel

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Runkel has written a book on perceptual control theory (PCT) which is at one and the same time: a text book for graduate and undergraduate psychology; an introduction to perceptual control theory (PCT) for the general reader; a paean to William Powers and his achievement—PCT; a memoir about his (Runkel's) exposure to PCT; and an integration of the research and theoretical work on PCT for those familiar with the theory.

In my opinion, he succeeds in all these tasks. As a textbook the book has many familiar features. In each of the seven parts, Runkel begins by "telling them what you are going to tell them," then "tells them," and, at the end of the part lastly, "tells them you've told them." He also consistently refers the reader to some works, classical and otherwise, to support his arguments, uses several examples from both the scientific literature and from his or the reader's everyday life to clarify his arguments, reminds the reader of his previous discussions of particular matters, points the reader to discussions to come on the present point, provides here and now "experiments" for the reader to help her/him understand the present topic. In addition, he discusses many standard subjects including memory and imagination (chapter 19); internal conflict (chapter 23); logic and rationality (chapter 25); personality (chapter 26); psychotherapy (chapter 31); language and communication (chapter 32); influence (chapter 33); schooling (chapter 37); mental testing (chapter 38) and devotes entire parts to other topics familiar to psychologists: Part I is entitled Research; Part II, Science, Part VI, Dyads and groups; and the last part, Part VII, The social order. Other similarities to texts in psychology are: the book is hefty, over 500 pages including at the end 20 pages of references, an 8 page name index and 6 pages of a subject index; several diagrams and figures to elucidate the content.

Despite these similarities to the typical text, there are several matters where Runkel differs from the typical traditional text in psychology There are no photographs or pictures illustrating typical or unusual experiments or events, no accompanying materials such as power point suggestions, CD's, VHF's, manuals for the instructor or student, sets of multiple choice or essay items, quizzes at the end of each chapter.

There are also several unique items, which in my experience are rarely, if ever, seen in textbooks: Runkel encourages the reader to question his writing and his ways of arguing, acknowledges that his analyses are different from those in the typical book on psychology or social science, repeatedly points out the fallacies in common usage, in writing about doing research, in using and interpreting data in the social sciences.

The most important differences between this book and those familiar to most social scientists are embodied in the title: People as *Living* things: the Psychology of *Perceptual Control*. The italics are mine. Runkel's text is a thorough presentation of W.T. Powers's perceptual control theory (hereafter PCT). For the reader familiar with current psychological work, if the title is not a clue, a glance at the table of contents will raise eyebrows. Some examples are: "Beware how I write (chapter 5), "Do it yourself" (chapter 6), "Don't fool yourself" (chapter 10), "Where's the reality?" (chapter 15), "Beware how anybody writes" (chapter 17.)

Final cues about the newness of this work occur in the preface, subtitled "What you can expect from this book." He begins with the following paragraph:

"This book offers a theory of human functioning. The theory does not claim to predict the acts humans will produce, or be induced to produce, or be prevented from producing—though that topic will come up. Rather, the theory will explain

how humans function regardless of the acts they choose—how acts serve the functioning. The book will also tell how we can stop demanding impossible behavior from humans, ourselves and others, and thereby free ourselves of the costs of many sorts of conflict.

Unlike authors of many popular books claiming to offer psychological knowledge, I will not tell you how to win friends and influence people. In fact, I will advise you to avoid trying to do that." p. xiii

Later in the preface he writes:

"I will disagree in serious ways with most of the widely accepted psychological theories you encounter in popular literature, in textbooks (of whatever discipline), and in the halls of academe. I will agree with the other theories at some points, but the underlying assumptions of the theory here (Perceptual Control Theory) are not those you will find either printed or implied on many of the pages printed about psychology. In that sense, this book is disputatious. I do not, by the way, claim that those other authors and lecturers are immoral or mentally deficient. I claim only that they are wrong." (pp. xiii—xiv)

He goes on to say:

"This book is about what life is like for humans—how we function, what we can and cannot do with our brains and bodies, when we are happy and unhappy, and the like. It is not only about what human life is now and has been like, but also about what it *can* be like—about what I *want* it to be like

....The Perceptual Control Theory (PCT) originated by Powers serves as the backbone for this book. Well, as more than that, actually. You'll see." p. xiv.

Runkel faces a problem that anyone has who introduces a new topic. The reader needs to know many details to understand the general ideas, and the reader needs to have an overview in which to fit the details. Which to do first—chicken or egg?

Runkel takes the tack of going slowly, step by step, in presenting PCT, and, as already mentioned, often summarizes how far he has gone. He even asks the reader to check on his, the reader's memory.

By page 129, Runkel has described most of the central concepts. Thus he can write:

"Perceptual control theory claims that behavior controls perception—at every time, in every place, in every living thing. The theory postulates that control operates through a negative feedback loop—neurally, *chemically, and both.* The theory postulates *the* growth of layers of control both in the evolution of the species and in the development of individuals of the "higher" animals. Those are the crucial postulations of invariance in PCT. They are asserted to have been true for the single cells floating hither and thither a billion years ago, which might have had only two layers of control, and they are asserted to be true for you and me with our many layers. They are asserted for all races, nations, sexes, and indeed all categories of humans—and indeed all categories of creatures. Furthermore, if one creature is found reliably to violate any one of those postulations (and yet go on living), the theory will immediately be revised.

Do you know of another theory of such sweep anywhere in the sciences of living creatures?"

I will not recount the detailed arguments that led to the above conclusion. If you want a detailed description of the basic concepts, I recommend two sources: a small volume by William T. Powers entitled *Making Sense of Behavior: The Meaning of Control* or go to the web site of the publisher of Runkel's book, www. livingcontrolsystems.com

The quote from page 19 is not the only place where this book is a paen to Powers and his work. After discussing the details of the hierarchy mentioned above, Runkel says:.

"I began reading the writings of W.T. Powers and his followers about 1985. As I read and pondered, I found my previous views undergoing wrenching and even frightening changes. I found myself having to disown hundreds, maybe thousands of pages of my writings that I had broadcast to my peers with pride. I found, then, that I could see order among my previous confusions about psychological method...

... The neural hierarchy is far more than a listing of nice-sounding categories. The theory itself tells how we can recognize the higher and lower placements of levels.

I have mentioned three momentous insights: (1) that the negative feedback loop is the prerequisite for life, (2) that numbers should be used to show the approximation of model to human individual, and (3) that control grasps more aspects of the environment through its hierarchical structure. For any one of those three momentous insights, I think Powers deserves a bronze statue in the town square. To put all three together in one grand system concept is the kind of thing that happens in a scientific field once in a century or more." p 213–214.

After reading these passages, I found myself searching my collection of Freud's work for his, Freud's, assessment of his own work. In 1920, Freud wrote:

"In the course of centuries the *naive* self-love of men has had to submit to two major blows at the hands of science. The first was when they learnt that our earth was not the center of the universe but only a tiny fragment of a cosmic system of scarcely imaginable vastness. This is associated in our minds with the name of Copernicus, though something similar had already been asserted by Alexandrian science. The second blow fell when biological research destroyed man's supposedly privileged place in creation and proved his descent from the animal kingdom and his ineradicable animal nature. This revaluation has been accomplished in our own day by Darwin, Wallace and their predecessors though not without the most violent contemporary opposition. But human megalomania will have suffered its third and most wounding blow from the psychological research of the present time which seeks to prove to the ego that it is not even master in its own house, but must consent itself with scanty information of what is going on unconsciously in its mind, We psychoanalysts were not the first to and not the only ones to utter this call to introspection, but it seems to be our fate to give it its most forcible expression and to support it with empirical material which affects every individual." S. Freud. (1966) Introductory lectures on psychoanalysis. N Y. W. W. Norton p. 353

Given these passages from Freud and Runkel, I wonder if the following simile holds: Freud's basic book on dreams is to his lectures on introductory psychology as Powers's basic text *Behavior: the Control of Perception* is to Runkel's work being reviewed here. To carry my speculations one step further, I leave to the future and future historians to supply a third notion to each side of the simile. Is it possible that the dominance of psychoanalytic concepts in our culture in the middle of the 20th century might just be paralleled by the dominance of PCT some time later in this century. I wonder.

I do not have to wonder about Runkel's cogent analyses and critiques of current psychological thinking. He keeps the promise mentioned in the preface. To give the flavor of his arguments and style, I offer the following quotes, a nonrandom sample, from later parts of his book. In Part V, he presents the higher orders of the neural hierarchy: programs, principles, and systems; in Part VI, dyads and groups; and in Part VII, the social order. If I had my druthers, these parts would be required reading for all undergraduate and graduate programs. In Chapter 25 (of Part V), titled *Logic and probability* Runkel begins a subsection on logic as follows:

"We humans spend a great part of every day with thoughts of "because" and "therefore"—that is, in reasoning. The extent to which we reason *logically*, however, is my first topic here. I am not going to offer you a short course in logic; I want only to give you a glimpse of what I am talking about when I use the word "logic." You may want to skip this section if you have studied a book on logic. Even a high-school course in demonstrative geometry, if your teacher taught the course as one in formal reasoning, would have acquainted you with what I mean.

At this very moment, it is possible that a million people in one place or another are saying, "It's only logical" or "It stands to reason." Usually, a person saying that means merely that he feels satisfied with his opinion—that he feels no internal conflict about the matter. But some people practice, some of the time, a kind of systematic thinking in which logic means much more than that, a kind in which thinking is much more meticulous and conscious." p. 275–276

After presenting a brief summary about syllogistic reasoning, Runkel begins a section titled "Fallacies and Unrealities" with the following (italics are his): *Programs of logic do not automatically turn out statements useful in the tangible world.* For one thing, a logically valid syllogism need have no connection with reality." Page 277.

Chapter 26, titled "Personality," contains a succinct analysis of trait theories and correlations. He begins the chapter with the following paragraph:

"It's all in our head. Every conception, every awareness you have of anything is a perception. Apples, bumblebees, democracy, mothers, personality, races, schizophrenia, the zodiac—all are perceptions. The higher a perception lies in the neural hierarchy, the more idiosyncratic it is. Almost all of us English speakers will agree on what should be called an apple, not a bumblebee, but we will have some wide differences of opinion about democracy and schizophrenia. You will find some wide differences about personality in this chapter." p. 287.

Runkel ends his discussion on validity with the following sentences:

"A test score cannot tell you in any direct way what you are like. It can tell you directly only how some test maker ranks you in relation to some other people in respect to a standard he cares about for some purpose having some unknown connection, if any, with your purposes." p 301

And after a brief discussion of intelligence, he concludes:

"I hope what I have written here leaves you with very little confidence in the usefulness of intelligence tests for any purpose whatever. I do not deny that you are justified, knowing two people fairly well, in putting more trust in the competence of one person to carry out certain kinds of tasks than in the other's. If, for want of a term you like better, you call the one person "more intelligent" than the other, I won't accuse you of misbehavior. But don't give the two of them an intelligence test; you won't know any more about them than you do now." p. 207.

He closes Part V with the following paragraph:

"What we need for a science of living creatures is the capability of building models that are testable with an individual—that can be disproved with an individual. Beyond that scientific purpose lies the purpose of sheer curiosity. I do not say it is shameful to investigate what can be correlated with what. I say only that correlations among traits or between traits and behavior cannot build a psychology that can be tested with individuals. We need a model of the person so constructed that it can fail its testing so clearly that the psychologist will revise the model instead of writing an explanation of how it is that his or her theory is nevertheless right after all." p. 302

Similar analyses and discussions appear in Part VI on dyads and groups and Part VII, The social order. In Part VI, he presents ideas on education. In the last chapter; titled "Society", he closes with a section called "Summing up." I can do no better in closing this review than to quote his last sentence, "I wish you well." p 488.

Len Lansky, June 2008