



The Interdisciplinary Handbook of Perceptual Control Theory Living Control Systems IV

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AUDIENCE: Researchers and students in psychology, neuroscience, engineering, sociology, ethology, computer science, evolutionary biology, linguistics, robotics, and artificial intelligence

SHELVING CLASSIFICATIONS:

Engineering Psychology, Applied Psychology (General), Experimental and Cognitive Psychology (General)

BISAC CODES: JPSSL, JMC, JMJ, JML, JMM, JMR, JNC, GTR

THEMA CLASSIFICATION:

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Reference on a model of behaviour applied to myriad areas of research in psychology, neuroscience, engineering, and computer science

KEY FEATURES

- Includes a previously unpublished essay by William T. Powers - developer of PCT
- Presents case studies to show how PCT can be applied in different disciplines
- Illustrates the Test for the Controlled Variable (TCV) and the construction of functional models as fruitful alternatives to mainstream experimental design when studying behavior
- Shows how the theory illuminates structure and functions in brain anatomy
- Compares and contrasts PCT with other contemporary, interdisciplinary theories

DESCRIPTION

The Interdisciplinary Handbook of Perceptual Control Theory brings together the latest research, theory, and applications based on W. T. Powers' Perceptual Control Theory (PCT). PCT proposes that the behavior of a living organism is the control of perceived aspects of itself and its environment. The book begins by introducing the theory, with subsequent chapters describing the application of PCT to a broad range of disciplines, each chapter written by an internationally recognized expert in their field.

The Interdisciplinary Handbook of Perceptual Control Theory shows psychologists why perceptual control is fundamental to understanding human nature; it shows neuroscientists a new way to do research on brain processes and behavior; it shows evolutionary biologists how the role of natural selection in behavior can be demystified; it shows sociologists a new way of thinking about conformity and diversity within social groups; it shows linguists how people use language to construct shared information grounded in personally embodied meanings; it shows computer scientists how to model psychological processes using artificial intelligence with a fraction of the computational cost of other approaches; and it shows engineers how to emulate human purposeful behavior in robots. Each chapter includes an author biography to set the context of their work within the development of PCT.



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TABLE OF CONTENTS

Biographies (Warren Mansell)

BACKGROUND

Preface: World Class Perspectives on Perceptual Control Theory (Warren Mansell)

SECTION A: WHY DO WE NEED PERCEPTUAL CONTROL THEORY?

1. The World According to PCT (William T. Powers)
2. Understanding Purposeful Systems: Engineering versus Psychological Approaches to Control (Richard S. Marken)
3. The Crisis in Neuroscience (Henry Yin)
4. When Causation Does Not Imply Correlation: Robust Violations of the Faithfulness Axiom (Richard Kennaway)

SECTION B: MODELS OF BRAIN AND BEHAVIOR

5. Unraveling the Dynamics of Dyadic Interactions: Perceptual Control in Animal Contests (Sergio Pellis and Heather Bell)
6. How the Brain Gets a Roaring Campfire: Structuring for Perceptual Results- Part 1 (Erling O. Jorgensen)
7. How the Brain Gets a Roaring Campfire: Input and Output Functions- Part 2 (Erling O. Jorgensen)
8. The Phylogeny, Ontogeny, Causation and Function of Regression Periods Explained by Reorganizations of the Hierarchy of Perceptual Control Systems (Frans X. Plooij)

SECTION C: COLLECTIVE CONTROL AND COMMUNICATION

9. Social Structure and Control: Perceptual Control Theory and the Science of Sociology (Kent Alan McClelland)
10. Perceptual Control in Cooperative Interaction (Martin Taylor)
11. Language and Thought as the Control of Perception (Bruce E. Nevin)

SECTION D: APPLICATIONS

12. Perceptions of Control Theory in Organizational Psychology (Jeffrey B. Vancouver)
13. How and Why We Use Method of Levels Therapy (Warren Mansell)
14. Robots in the Real World (Rupert Young)
15. PCT and Beyond: Toward a Computational Framework for 'Intelligent' Systems (Roger K. Moore)

SECTION D: SYNTHESIS

16. Ten Vital Elements of Perceptual Control Theory: Tracing the Pathway from Implicit Influence to Mainstream Science (Warren Mansell)

Appendix (Warren Mansell)