

Cohen presents the most specific focus on creativity.

The most research-based discussions, especially as the analyses relate to gifted learners, are presented in a chapter by Bruce M. Shore, F. Gillian Rejskind, and Lannie S. Kanevsky, "Cognitive Research on Giftedness," and another chapter by Sophie Pelletier and Bruce Shore on "The Gifted Learner, the Novice, and the Expert."

Klaus Urban strives in his chapter, "Toward a Componential Model of Creativity," most directly toward the goal of this book, namely theoretic integration, with comprehensive models and designs that seek to incorporate all the cognitive and emotional aspects of creative processes, as well as environmental and zeitgeist influences. Patricia Hollingsworth uses a somewhat similar approach in "The Ecosystem of Giftedness and Creativity." Both Urban and Hollingsworth draw heavily on creativity researchers who are well-known in the field of gifted education, Urban with a total of 96 references and Hollingsworth with 38 references.

The rest of the chapters of this book are all well written and present divergent perspectives on creative thinking processes from "Chaos Theory" by Anne Sterling to "Excitability" by Michael M. Piechowski. The chapters deal well with creativity in art and science as well as the motivational underpinnings of creative functioning.

Overall, this book offers a very good and comprehensive review and integration of theory and research on creativity and intelligence. The leading theorists of our time from Amabile, Csikszentmihalyi, and Feldman to Gardner, Gruber, and Torrance are well represented in the chapter reviews. The introduction of so much attention to gifted individuals and gifted education is a bit puzzling but perhaps is relevant to the general topics of creativity and intelligence. This is good reading for all scholars and developers who strive to understand the composite phenomenon, creative intelligence. □

chology course, only to conclude by admitting to the trusting students that indeed the modal model is "most likely" not the best description of human cognition (cf. Healy & McNamara, 1996)? Surely, one exclaims, there is a better way of teaching students about the complexities of the human mind without going through a myriad of less than adequate explanations for a phenomenon before finally arriving at a tentative solution, or an impasse. A vast number of students invariably respond with grief that the "answer" had not just been provided in the first place. Instructors smirk at their inability to accept ambiguity. Yet, does their response stem from the lack of tolerance for uncertainty and a complete lack of appreciation for the scientific method? Or, alternatively, do students have reason for their dismay? Has the instruction of human cognition essentially turned into a history of cognitive psychology course? Is that the best way to convey the complex concepts intrinsic to the topic?

Earl Hunt's book, *Précis of Thoughts on Thought*, is clearly a deviation from this traditional approach to cognition instruction. In a variety of ways, Hunt has turned away from the typical approach to cognitive psychology textbook writing. First, it does not present a historical account of cognitive psychology. For the most part, the success stories are covered—leaving out the obvious theoretical failures of the past. Indeed, the writing style is somewhere between that of an encyclopedia article and an essay. Essentially, Hunt attempts to provide the most current explanations for cognitive processing. Moreover, he does so in an integrative fashion. That is, ties are often drawn among the different areas of the cognitive psychology.

Second, the textbook more radically departs from the traditional text-

Thoughts on "Thoughts on Thought" and More Thoughts on Cognitive Textbooks

Précis of Thoughts on Thought

by Earl Hunt

Mahwah, NJ: Erlbaum, 2002. 162 pp. ISBN 0-8058-0265-7 \$29.95, paperback

Review by Danielle S. McNamara

The field of cognitive psychology has evolved immensely over the past half century.

Also, as cognitive theories have come and gone, cognitive textbooks have generally kept stride by tacking on the latest accepted account for the particular phenomenon to the end of the respective chapter. Hence, the student is forced to trek through all of the failed accounts before finally getting a brief glimpse at a more reason-

able, mature explanation of the phenomenon at hand. For example, a typical pattern recognition chapter faithfully begins with an explanation of the long-ago dismissed template theory, proceeds through theories to outline our historical understanding, and ends with a cursory summary of connectionist theories. Or, how many instructors have trudged diligently through the three separate memory stores while teaching a cognitive psy-

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book model by using a "hypertext" system. There is a 158-page handbook referred to as the précis, which is accompanied by a CD containing 1,426 pages of explanatory material. The précis provides an overview of each topic with references to the expanded versions on the CD. The CD provides longer versions of the chapters formatted as Microsoft Word files (which contain links to related chapters or concepts). A 15-year endeavor by Hunt, this material is now neatly packaged as hypertext and stored on a CD, which in hard-copy format can be stacked almost two feet high in hard-copy format. Clearly, Hunt has made a unique, passion-driven contribution to the field of cognitive science.

Now the question falls to the instructors of cognitive psychology and cognitive science as to how or whether this new approach can be successfully used in a classroom. There are some reasons why many instructors may be reluctant to take on the challenge that Hunt provides the opportunity to face. First, there is no other textbook like it. The concepts are not presented in the same order as other textbooks, the traditional categories are not maintained, and the concepts are not presented in the same way. Thus, if as an instructor, you intend to lecture using this book, you will have to prepare to discard your old teaching materials.

Second, one argument in favor of the more traditional, historical approach to cognition instruction is that it covers cognitive psychology and may at the same time teach the student the scientific approach. The student is exposed to the scientist's (faulty) mind and the gradual approach to a solution. In this way, the cognition student should emerge with a better understanding of science in general as well as cognition. In the same way, ideas that a student may have are refuted, thus avoiding lingering misunderstandings, and in the case of graduate students, recreations of wooden wheels. Furthermore, this gradual accumulation of facts more slowly builds the students' understanding of the phenomenon.

So, a more historical perspective provides a slow unveiling of the explanation, rather than a brute force presentation of facts as one currently understands them. The underlying assumption is that students' understanding will be more complete if it follows the same path as the scientists'. This in turn increases the likelihood that students will have sufficient background knowledge to understand the more current explanations of cognitive concepts.

A resulting downside to Hunt's approach is that the text is on the knowledge-demanding side of the spectrum. It is knowledge demanding for at least three reasons. The first arises from Hunt's tendency to not cover the history of scientific discovery in cognitive psychology. The second arises from Hunt's tendency to discuss the interrelationships among concepts in cognitive psychology. While discussing relationships among different topics is essential to the field, it requires that the reader have some basic notions of the topics beforehand. The third source of the book's knowledge demands results from the use of the précis as the short form of the larger book. These three factors together often result in a lack of cohesion, or a large number of conceptual gaps. Because conceptual gaps must be filled by the reader using prior knowledge, only readers with sufficient background knowledge are generally able to navigate low-cohesion texts (e.g., McNamara, 2001; McNamara & Kintsch, 1996). The author is a very good and clear writer. However, it is simply not possible to summarize cognitive psychology in 158 pages without leaving some conceptual gaps. Hence, my strongest recommendation is that this is not a textbook for students who have not had a previous introductory course covering human cognition. Although Hunt generally provides thorough explanations of difficult concepts, he frequently assumes readers possess prior knowledge of basic concepts. Oftentimes, these concepts are explained within the longer chapters on the CD. For example, though experimental evi-

dence is generally not described within the précis, there are quite thorough descriptions within the expanded chapters. Nonetheless, the lack of cohesion combined with the knowledge demands in the précis would make the comprehension task overbearing for students without sufficient background.

For whom would *Thoughts on Thought* be appropriate? First, of course, this volume should be very useful to anyone who would like to learn more about specific topics in cognitive psychology. Hunt's reviews of the topics covered are sometimes biased, but in general they are objective and thorough. Hence, I highly recommend this book to anyone interested in brushing up on or learning more about topics such as memory, symbolic models, connectionist models, visual-spatial processing, language (psycholinguistics), knowledge organization, reasoning, and decision making.

Second, this book could be used as a textbook in a graduate-level cognition course. The combination of the précis with the supporting hypertext material presents numerous options to the instructor. One approach may be to talk about the material covered in the précis in the class, and have students choose chapters to read from the CD. They might, for example, give presentations about material covered in the CD, or use the expanded material in the CD as a starting point for a paper. Another approach would be to focus on selected topics from the book. For example, I could imagine a course on cognitive modeling that could use the chapters on symbolic (blackboard) and connectionist models as a starting point before reading primary articles on the topic and learning how to implement the models. Similarly, I could imagine a seminar on memory in which the students may start by reading selected chapters in the précis as an overview, and then delve more deeply into the topics by reading the expanded chapters and primary articles. What I appreciate most about the book is the possibility of using the précis as a starting point—

this in essence offers the reader a schema for the material covered. Then the reader can use this schema to develop a deeper understanding via the expanded materials.

These recommendations, however, need to be taken only in light of the overall difficulty of the book. I have strong doubts that this is a book appropriate for a complete novice to cognitive psychology or layperson. As an instructor of undergraduate cognition, this is somewhat disappointing. One thing that has become painfully clear to me as an instructor of cognition is that the traditional approaches to cognitive textbooks can be ineffective. Hunt's work is a step toward solving that problem. I believe that one problem with traditional cognitive textbooks is the use of what I have called the *historical perspective*—many authors have typically presented conceptual topics by outlining their theoretical evolution. The student is presented with all of the *wrong* theories, and then offered a more current understanding. This approach creates a jumbled picture of cognition as well as frustrated students. This approach is also becoming unmanageable as the discipline expands. Hunt, instead, describes the conceptual topic and the best understanding or understandings of the topic. This is not to say that Hunt does not describe early research. He does, but generally only as it fits into the current understanding of the phenomena. However, he tends to avoid going into the various defunct theoretical explanations of well-established phenomena. This approach presents a more coherent picture for the reader (with sufficient prior knowledge). Using the analogy of a realtor, Hunt does not waste the

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home buyer's time by going to all the *bad* houses first. In sum, this volume is an exciting development in textbook writing. It opens up doors to different ways of learning and teaching. Moreover, it is clearly unique. Indeed, its uniqueness is underlined by the last word of the (expanded) volume—*much*. □

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Objects, Objects Everywhere, but What Are We to Think?

Objects and Attention
by Brian J. Scholl (Ed.)

Cambridge, MA: MIT Press, 2002. 220 pp. ISBN 0-262-69280-5.
\$40.00

Review by Cathleen M. Moore

Scholl brings together in a single edited volume a diverse array of researchers to write about their work concerning how mental representations of objects in the world are established and what consequences those representations have for selective information processing. The list of contributors and their respective topics of discussion reflects the main goal of this collection, which is to highlight the fact that different research communities are raising remarkably similar questions, and that despite there being relatively little discourse between these communities, they are coming to remarkably similar conclusions. A hope was that a single volume that provides a sampling of these different research programs would engender greater interaction among the respective research communities.

The volume, which originally appeared as a special issue of the jour-

nal *Cognition*, includes seven papers. Five of the papers, those by Scholl (Chapter 1), Driver et al. (Chapter 3), Kubovy and Van Valkenburg (Chapter 4), Pylyshyn (Chapter 5), and Carey and Xu (Chapter 7) are review-style papers that provide an analysis and synthesis of large bodies of research, much but not all, from the laboratories of the respective authors. The remaining two chapters, those by Cavanagh, Labianca, and Thornton (Chapter 2) and Scholl, Pylyshyn, and Feldman (Chapter 6), are empirical papers that provide examples of the kind of work being conducted on the topic.

Broadly speaking, there are three

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