

driving the rejection of multiculturalists by right wing public intellectuals such as Rush Limbaugh, each of Giroux's deconstructions of cultural texts can provide models for teachers of media studies in high schools, colleges, and universities who wish to enable their students to investigate how barriers to multicultural understanding are being formed in the minds of the viewing public.

James C. Greenlaw
Saint Francis Xavier University

Olson, D.R. & Torrance, N. (Eds.). (1996). *Modes of thought: Explorations in culture and cognition*. New York: Cambridge University Press, 305 pp. (Softcover).

This book is comprised of 17 papers that were written in conjunction with a workshop held in Toronto in 1993. The writers are anthropologists, historians, and psychologists who raise questions about the nature of diversity in modes of thought. Throughout the book the postmodern influence makes the exploration of diversity in thinking compelling but also makes questionable the possibility of knowing that diversity through a discourse that ultimately reduces other forms of thinking into the terms of its own.

Many of the papers deal with the nature of scientific thinking. Geoffrey Lloyd compares and contrasts scientific inquiry across various disciplines in Ancient Greece and Ancient China, but throughout his discussion also emphasizes important differences within the various disciplines and the two cultures discussed. His paper is valuable because it reminds one of the multiple ways in which a mode of thinking might come to be considered scientific although, by his own admission, his focus on explicit knowledge is an important limitation to his discussion. Scott Atran's paper explores ordinary people's beliefs about biology in cultures as different as the Itzaj Maya and Michigan university students. He argues that there are more cross-cultural similarities in this thinking about biology than researchers tend to recognize. However, the credibility of his argument is weakened by his selection of evidence and

by the every-present problem of subjectivity and objectivity that makes one question how an anthropologist could distinguish between the patterns that are universal across cultures and the perceived universality that is an artifact of one's ethnocentric perspective. Setting the difficulties of cross-cultural comparisons aside, Deanna Kuhn's paper, as Atran's, rightly suggests that our understanding of scientific thinking has been hampered by our tendency to dichotomize it from the thinking that people do in everyday life. However, in her discussion of science education she does not adequately address the methodological and ideological implications of labeling ways of thinking as more or less scientific. In heeding her call to attend more to scientific process in education, we risk falling back on narrow definitions of what that process should be. This is a risk Kuhn acknowledges but does not resolve.

The preceding papers, like others in this book, point to important questions about what happens when social scientists classify and examine modes of thought, as if these modes have an existence independent of the observer's interpretation. Feldman and Kalmar's report on experiments with undergraduate students indicates that our categorization of a text's genre affects not only whether or not we perceive its story to be true but also the way we conceptualize the plot and interpret its various elements. If their finding is extended to the classification of a mode of thought, which may be analogous to genres, then the implication is that the social scientist's labeling ways of thinking as "myth" or "science" and so on, would result in transformations of their meanings. This possibility creates contradictions that permeate the essays in this book. For example, Jerome Bruner argues that cognitive science needs to be open to multiple possibilities with respect to diverse modes of thinking, stating it is a mistake to cling to "one model of mind, any model" (p. 103). Notwithstanding, he draws on expository discourse to classify modes of thought while trying to make a case for acknowledging the power of the narrative mode which does not engage in such classification. Along a similar vein, Cameron Shelly and Paul Thagard claim that a multiconstraint theory of analogy can "clarify the nature of myth" (p. 180), yet this claim is made with unconvincing confidence that the application of such theories does not destroy the nature of myth itself.

David Olson's discussion of young children's invented spelling provides fuel for speculation about the roots of the psychologists's penchant for categorizing and analyzing modes of language and thought.

He suggests that the learning of letters in a literate society enables children to segment phonemes and this process, because it makes it possible to isolate the parts of an utterance and examine their forms, fosters the development of logic. It may be true that writing has a fixity that enables us to categorize units of language, as Olson argues, but this fixity might also foster an obsession with the language category itself. Indeed, the uncritical ease with which Olson uses categories such as *preliterate* and *literate* is disconcerting. As Ian Hacking points out in his discussion of *normal*, the labels that social scientists apply to people are neither objective in their conceptualization nor are they neutral in their effects. In conjunction with Stanley Tambian's and Brian Stock's papers on the modernist self, there is potential for critique of the discourse surrounding culture and cognition and its traditional separation of subject and object, thought and affect, and Self and Other, as its placement of the scientist in the role of detached observer. Unfortunately, the book does not exploit this potential.

Does considering alternate ways of thinking contribute anything to our understanding of teaching and learning in schools? If so, how? These papers pay insufficient attention to questions about educational practice. Important omissions include the critical consideration of formal and hidden curricula, the study of social interactions through which students acquire patterns of thinking, and the examination of schooling practices that privilege some forms of thought over others. In addition, issues of gender in relation to culture and cognition remain unexplored. For those engaged in the quest to classify what is common and what is different about people's thinking in different times and places, this book provides a wealth of information. However, it does not provide the more critical perspectives that are necessary to challenge the nature of that quest.

Carol Leroy
University of Regina