These essays by leading theorists and researchers in sociocultural, cognitive, developmental, and educational psychology honor the memory of Sylvia Scribner, whose work is recognized by each of the author as germinal to their own thinking. The themes include the relationship between history and culture, the importance of context to thinking, the place of literacy in human activity and thought, and cognition in school and in the workplace. The volume presents applications of activity theory to fundamental issues in human behavior at work, in school, and in problem solving situations, and it analyzes historical–societal processes in science and culture. Scribner’s conviction that science holds a responsibility to human welfare and understanding is carried on in these chapters.
Sociocultural psychology
Learning in doing: Social cognitive, and computational perspectives
General Editors: Roy Pea and John Seely Brown

The Construction Zone: Working for cognitive change in school
Dennis Newman, Peg Griffin, and Michael Cole

Plans and situated actions: The problem of human-machine interaction
Lucy Suchman

Situated Learning: Legitimate peripheral participation
Jean Lave and Etienne Wenger

Street Mathematics and School Mathematics
Terezinha Nunes, Analucia Dias Schliemann, David William Carraher

Distributed Cognitions: Psychological and Educational Considerations
Gavriel Salomon (editor)

Understanding Practice: Perspectives on activity and context
Seth Chaiklin and Jean Lave (editors)

Sociocultural Studies of Mind
James V. Wertsch, Pablo del Rio, Amelia Alvarez (editors)

Sociocultural Psychology: Theory and practice of doing and knowing
Laura M. W. Martin, Katherine Nelson, and Ethel Tobach (editors)
Sociocultural psychology
Theory and practice of doing and knowing

Edited by
LAURA M. W. MARTIN
Arizona Science Center

KATHERINE NELSON
City University of New York Graduate Center

ETHEL TOBACH
American Museum of Natural History
Contents

Series foreword
Preface
Contributors

1 Introduction
Laura Martin, Katherine Nelson, and Ethel Tobach

Part I History and culture

2 Situated theory as a bridge between psychology, history, and educational practices
Robert Serpell

3 The uniqueness of human labor
Ethel Tobach

4 Reflecting on Russian consciousness
Jerome Bruner

Part II Doing psychology

5 Opening vistas for cognitive psychology
William Hirst and David Manier

6 Analysis of developmental processes in sociocultural activity
Barbara Rogoff, Barbara Radziszewska, and Tracy Masiello

7 Linking thought and setting in the study of workplace learning
Laura M. W. Martin
Contents

8 Cultural–historical psychology: A meso-genetic approach 168
   Michael Cole

9 The abstract and the concrete 205
   Rachel Joffe Falmagne

10 From spontaneous to scientific concepts: Continuities and discontinuities from childhood to adulthood 229
    Katherine Nelson

11 The psychology of Japanese literacy: Expanding “the practice account” 250
    Giyoo Hatano

12 Voices of thinking and speaking 276
    James V. Wertsch, Fran Hagstrom, and Eve Kikas

Part IV Activity in work and school

13 The qualitative analysis of the development of a child’s theoretical knowledge and thinking 293
    Mariane Hedegaard

14 Innovative organizational learning in medical and legal settings 326
    Yrjö Engeström

15 Intellectual and manual labor: Implications for developmental theory 357
    Joseph Glick

16 Visionary realism, lifespan discretionary time, and the evolving role of work 383
    Howard E. Gruber

Index 405
Series foreword

This series for Cambridge University Press is becoming widely known as an international forum for studies of situated learning and cognition.

Innovative contributions are being made by anthropology, by cognitive, developmental, and cultural psychology, by computer science, by education, and by social theory. These contributions are providing the basis for new ways of understanding the social, historical, and contextual nature of the learning, thinking, and practice emerging from human activity. The empirical settings of these research inquiries range from the classroom, to the workplace, to the high technology office, to learning in the streets and in other communities of practice.

The situated nature of learning and remembering through activity is a central fact. It may appear obvious that human minds develop in social situations, and that they come to appropriate the tools that culture provides to support and extend their sphere of activity and communicative competencies. But cognitive theories of knowledge representation and learning alone have not provided sufficient insight into these relationships.

This series was born of the conviction that new and exciting interdisciplinary syntheses are under way, as scholars and practitioners from diverse fields seek to develop theory and empirical investigations adequate for characterizing the complex relations of social and mental life, and for understanding successful learning wherever it occurs. The series invites contributions that advance our understanding of these seminal issues.

Roy Pea
John Seely Brown
Preface

In the 1980s, as Sylvia Scribner’s research shifted direction from her concern with the influence of literacy on thinking towards the modes of thinking exhibited in different activity contexts, she began planning to integrate her work in a form that would bring together different problem areas. She was looking forward to consolidating what she had learned from the past 10 years of research on learning at work into a book, or books. One idea was to synthesize her ideas in a monograph on activity and development by examining the function of each leading activity in life – play, school, and work. To prepare, she had been reading in the areas of dialectical philosophy, Soviet theory, concept development, play, work studies, and biology.

Her last years of research carried out in the Laboratory for Cognitive Studies of Work were intense, with little opportunity for reflection, and her last illness came on suddenly and lasted a few brief months. Thus, she never had the opportunity to carry out her plan.

At the time of her death in 1991, she had nearly completed two sets of empirical studies, funded by the Spencer Foundation, the National Center for Education and the Economy, and the National Center for Research on Vocational Education. These studies expanded her ideas from earlier research on workplace cognition in a dairy plant, investigating how the introduction of new technologies affected activity and thought in factory settings. Sylvia’s unifying interest, of course, was studying changes in thinking as they relate to changes in work experience. This is a derivation of the fundamental question concerning the relation between culture and cognition, which motivated her work from the time that she began her career in experimental psychology in the 1960s.

Her completed work speaks for itself, and no book could substitute for what she might have produced if she had had the time. But many of those who were close to her at different times and who were influenced
by her thinking wanted to put together a volume that reflected her thinking and the ways in which she influenced the thinking of others.

When Sylvia became ill early in 1991, we informed her that we wanted to produce a volume in her honor. She was pleased, especially since she felt that women scholars are too seldom given such recognition. She had a number of ideas that we have tried to incorporate, and she suggested names of people who might be willing to contribute to such a volume. Each contributor was asked to write an original chapter on a topic that had been a focus of Sylvia’s own thinking at some point in her career. Each chapter reflects the point of view of the writer, as well as the interests and influences of Sylvia’s thought. This is a festschrift by her colleagues; none of the contributors were her students in the usual sense, although all were her students in a deeper sense.

Sylvia’s influence has been great and continues. Two books have been organized in her honor. This first volume is a collection of papers by colleagues in appreciation of her contributions to their own thinking and research. The second volume is a set of selected papers by her. The two volumes offer a fitting testament to a provocative psychologist and citizen of the world.

Laura M. W. Martin
Katherine Nelson
Ethel Tobach

Reference
 Contributors

Jerome Bruner
Department of Psychology
New York University
New York, New York

Howard E. Gruber
Teachers College
Columbia University
New York, New York

Michael Cole
Laboratory of Comparative Human Cognition
University of California, San Diego
La Jolla, California

Fran Hagstrom
Department of Psychology
Clark University
Worcester, Massachusetts

Yrjö Engeström
Laboratory of Comparative Human Cognition
University of California, San Diego
La Jolla, California

Giyoo Hatano
Keio University
Tokyo, Japan

Rachel Joffe Falmagne
Department of Psychology
Clark University
Worcester, Massachusetts

Mariane Hedegaard
Institute of Psychology
Aarhus University
Denmark

Joseph Glick
Developmental Psychology
City University of New York Graduate Center
New York, New York

William Hirst
Department of Psychology
New School for Social Research
New York, New York

Eve Kikas
Tartu University
Tartu, Estonia

David Manier
Department of Psychology
New School for Social Research
New York, New York
Contributors

Laura M. W. Martin
Arizona Science Center
Phoenix, Arizona

Tracy Masiello
University of Utah
Salt Lake City, Utah

Katherine Nelson
Developmental Psychology
City University of New York Graduate Center
New York, New York

Barbara Radziszewska
University of Southern California
Los Angeles, California

Barbara Rogoff
Department of Psychology
University of California, Santa Cruz
Santa Cruz, California

Robert Serpell
Department of Psychology
University of Maryland,
Baltimore County
and University of Zambia

Ethel Tobach
Curator Emerita
American Museum of Natural History
New York, New York

James V. Wertsch
Department of Psychology
Clark University
Worcester, Massachusetts