

## The Mind on Paper

Although the importance of literacy is widely acknowledged in society and remains at the top of the political agenda, writing has been slow to establish a place in the cognitive sciences. Olson argues that to understand the cognitive implications of literacy, it is necessary to see reading and writing as providing access to and consciousness of aspects of language, such as *phonemes*, *words* and *sentences*, that are implicit and unconscious in speech. Reading and writing create a system of metarepresentational concepts that bring those features of language into consciousness as a subject of discourse. This consciousness of language is essential not only to acquiring literacy but also to the formation of systematic thought and rationality. *The Mind on Paper* is a compelling exploration of what literacy does for our speech and hence for our thought, and will be of interest to readers in developmental psychology, cognitive science, linguistics and education.

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## Reading, Consciousness and Rationality

DAVID R. OLSON

*OISE/University of Toronto*



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*In memory of Jerome Bruner, mentor and friend, 1915–2016*

Contents

List of figures	<i>page</i> ix
Preface	xi
PART I INTRODUCTION: READING, WRITING AND THE MIND	1
1 Awakening: Reading and Consciousness	3
PART II THEORIES OF THE RELATION BETWEEN WRITING AND MIND	17
2 Inventing Writing: The History of Writing and the Ontogeny of Writing	19
3 Dewey and the New Pragmatists: Reading, Writing and Mind	39
4 Vygotsky and the Vygotskians	52
5 The Cognitive Science of Metarepresentation	65
PART III READING AND THE INVENTION OF LANGUAGE ABOUT LANGUAGE	85
6 Phonemes and the Alphabet	87
7 The Discovery of Words and Thinking about Words	98
8 Sentences and Logic	115
9 Prose and Rational Argument	140
10 The Testing of Rationality and the Rationality of Testing	157
	vii

viii CONTENTS

PART IV THE IMPLICATIONS AND USES OF METAREPRESENTATIONAL LANGUAGE	171
11 The Psychology and Pedagogy of Reading	173
12 The Psychology and Pedagogy of Rationality	197
PART V CONCLUSIONS	213
13 Reading, Consciousness and Rationality	215
References	244
Author Index	262
Subject Index	266

Figures

2.1	NAMA Tablet 7671 Linear B: A Mycenaean form of writing, c. 1400 BC, found in Knossos, Crete, that registers the amount of wool to be dyed. (By permission of the Hellenic Ministry of Culture and Sports/Archaeological Receipts Fund.)	page 20
2.2	Blackfoot Winter Count. (Courtesy of Glenbow Museum, Calgary, Alberta.)	21
2.3	Sound spectrogram of “Hispanic costumes are quite colorful.” (Courtesy of A. Bregman, McGill University.)	24
2.4	Two ways of representing objects and quantities: Three ducks and “Three ducks.” (Adapted from Schmandt-Besserat (1986). Courtesy of Ellen Foley.)	25
2.5	Syntactic writing. Cuneiform tablet from Ur, 2960 BC, itemizing contents of a storehouse. (Courtesy of the British Museum under Creative Commons licensing.)	27
2.6	Egyptian hieroglyphic signs for the royal names: Cleopatra and Ptolemy (Adapted from “The Rosetta Stone.” Published for the Trustees of the British Museum, 1950.)	28
2.7	Can you write “Three cats”? Copy of the original data sheet; printed text inserted later.	34
2.8	Can you write “Dog”? Copy of original data sheet for one subject. (Courtesy of Bruce Homer.)	35
2.9	Write “Three hockey sticks.” (Reprinted with permission from Pelletier, 2002.)	36

X FIGURES

2.10	“Dad has 3 hockey sticks.” (Reprinted with permission from Pelletier, 2002.)	37
11.1	International comparisons reveal declining school achievement of 15-year-olds in Western countries over the past decade. (Source: EQAO: <a href="http://www.eqao.com/ProvincialReport/Files/14/PDF/provincial-report/elementary-findings-2014.pdf">www.eqao.com/ProvincialReport/Files/14/PDF/provincial-report/elementary-findings-2014.pdf</a> .)	193



## Preface

It is, by now, widely acknowledged that reading and writing and literacy in general have played a critical role in the formation and operation of a modern bureaucratic society, the world I described in an earlier work, *The World on Paper*. At the same time, it remains much in dispute whether reading and writing in such social circumstances play a decisive role in the formation of the modern mind. Opinions range from the claim that the mind-brain is the universal, indeed biological, property of human cognition, to the view that the mind is a social construction shaped to reflect an existing social order. Between is the view, often traced to Vygotsky, that the biological resources of the mind are amplified or extended through the technologies of the culture.

One such technology is that of writing, whose uses extend into almost every institutional and intellectual undertaking in a modern society. Just how and why it does so remain open questions. Although concepts such as the “literate mind” and “literate mentality” have found a permanent place in classical, historical and cultural studies, and although the language arts largely define the curriculum of the school, writing has been slow to find a place in cognitive sciences and in the philosophy of mind. This book is an attempt to find such a place, to find “the mind on paper.”<sup>1</sup>

While it is uncontroversial that writing is a useful tool for planning action and for solving problems, the central claim of this book is that the cognitive significance of writing lies elsewhere: namely, in the fact that writing brings a new consciousness to speech. It is that consciousness of language that I explore and that provides a bridge

<sup>1</sup> Thanks to Janet Astington for offering this expression as a title for the book.

## xii PREFACE

from children's earliest efforts in learning to read to the specialized rational thinking of educated adults.

I was first drawn to this topic when, under the direction of Jerry Bruner, I was attempting to show how children's acquisition of a spoken language made their thinking about spatial relations conscious and deliberate, and I came across Jack Goody and Ian Watt's classic paper "The Consequences of Literacy." The article was the first clue to the possibility that the invention of a written form for representing speech could have allowed speakers, perhaps for the first time, to realize that their speech was actually composed of a small set of distinctive elements. Their view of literacy and mind provided a key to my understanding of what McLuhan had been up to with his discussion of the media. McLuhan, of course, is well known for his sometimes extravagant claims about the effects of the media, including writing and printing, on both culture and consciousness. Vygotsky's *Thought and Language*, published in English at just this time, 1962, offered the possibility of examining the implications of writing and reading from an empirical developmental perspective. These advances provided the larger perspective that turned reading theory into literacy theory, thus raising new questions about the nature and uses of writing, and in the present case, the relations between reading and mind.

There is a deep irony in the fact that although educators since the rise of humanism in the 18th century have insisted on the importance of education for the development of mind and have mounted extensive and energetic literary programs to achieve that goal, the cognitive sciences have, by and large, ignored the relation between speaking and writing and the relation between writing, reasoning and rationality. Consequently, this book attempts to address two quite different audiences: one concerned with the development of literate cognition, primarily those concerned with education and human development; the other concerned with the role of writing in the formation of mind, primarily those concerned with the cognitive sciences. One recognizes the importance of education in the development of the modern mind; the other examines the mental processes

involved in achieving this goal. These two audiences are, I believe, increasingly becoming one. One cannot improve education without a fuller understanding of mind, just as one cannot fully understand the mind without a fuller account of the role of reading and writing and literacy in general on human rationality.

In this book I warm to the task by sketching in some facts about writing and the currently available theories of writing and mind, particularly those of Dewey's Pragmatism, Vygotsky's socio-cultural psychology and contemporary theories in the cognitive sciences. I then turn to the specific domains in which we may expect to locate the cognitive implications of learning an alphabetic script, namely for representing phonemes, words, sentences and written prose. Finally, I examine two contexts in which this specialized literate knowledge is central, namely in learning to read and in the development of rational thought. The final chapter pulls together the relations between reading, consciousness and rationality.

Although the topic of writing and mind is very broad, the question I address is somewhat narrow, focusing on one kind of writing, alphabetic, in one kind of society, a modern Western one, for one kind of competence of broad applicability, reading and writing prose. This allows me to examine in a more precise way the relation between reading and consciousness of language and how that consciousness plays out in modern reflective thinking. But at the same time I'll disappoint readers hoping for an exploration of the broader question of the relation between literacy and literature.

I am grateful for the thoughtful advice and critical comments on the multiple drafts of this work by friends and colleagues including Marilyn Jager Adams, Janet Astington, Alf Bang, Eric Bredo, Christina Erneling, Joseph Heath, Keith Oatley, Frank Smith and Brian Stock. And thanks to Frances, a true Dorothea to this Casaubon, for everything.