
THE CAMBRIDGE HANDBOOK OF

Literacy

EDITED BY

David R. Olson
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The Cambridge Handbook of Literacy



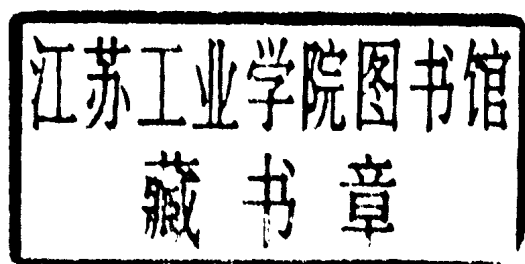
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CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE UNIVERSITY PRESS

Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press

32 Avenue of the Americas, New York, NY 10013-2473, USA

www.cambridge.org

Information on this title: www.cambridge.org/9780521680523

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First published 2009

Printed in the United States of America

A catalog record for this publication is available from the British Library.

Library of Congress Cataloging in Publication data

The Cambridge handbook of literacy / edited by David R. Olson, Nancy Torrance.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-521-86220-2 (hardback) – ISBN 978-0-521-68052-3 (pbk.)

1. Literacy. I. Olson, David R., 1935– II. Torrance, Nancy. III. Title.

LC149.C28 2008

302.2'244 – dc22 2008045809

ISBN 978-0-521-86220-2 hardback

ISBN 978-0-521-68052-3 paperback

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Preface

Literacy is both an urgent practical concern and a metaphor for modernism itself. Further, the uses of literacy are so pervasive and diverse, affecting every aspect of personal and social life for an increasingly large proportion of humankind, that the prospect of addressing it as a single topic almost certainly invites skepticism. Entire fields of study are devoted to special aspects or uses of literacy – for example, theories of literature, science, and law – not to mention those that specifically address the topics of learning to read and write. Indeed, the specialized uses of writing for such purposes as tomb inscriptions, shopping lists, field notes, billboards, traffic signs, cattle brands, laws, constitutions, equations, treatises, epics, love notes, advertisements, and other forms of dissembling are so diverse as to warrant describing them as different ‘literacies,’ each with its own set of conventions and pattern of implications. What unites them – visual signs that represent linguistic forms – is such a small part of a social practice that they scarcely bear mention. Yet, attention to specific uses of literacy may lead us to overlook the more general questions of just how lit-

eracy is used to regulate and inform social practices, sometimes so dramatically as to warrant the description of an entire society as literate. Certainly, this was the concern of economist Harold Innis (1951) when he proposed that different forms of social organization were the result of “the bias of communication.” So, while it is appropriate for some purposes to focus on the diverse uses of written signs, it is appropriate for other purposes to look at the relationships among those uses. Neither focus has a monopoly on significance and the chapters that constitute this *Handbook* attempt to provide some balance between the examination of basic principles of reading, writing, and literacy and the extraordinary diversity to which those principles have been exploited for various social and personal purposes, both historically and in the present.

The very concept of literacy implies that writing and reading are social practices involving both writers and readers in what Brian Stock (1983) has called a “textual community” and Karel van der Toorn (2007) has called a “scribal culture.” Even Robinson Crusoe and Samuel Pepys, who

wrote for themselves alone, employed established conventional forms of expression and canons of interpretation that constitute literary traditions. Much of a society's significant work is conducted within those traditions, whether in science and politics or in diaries and personal letters. Not only do such traditions have a history, they also compete for dominance – for example, between science and religion. In other cases, patterns of use and interpretation are so divergent that readers – unwilling to make the effort – judge them as unintelligible. Just because they are social practices does not mean that they are not, at the same time, uniquely personal. A reader meditating and reading a prayer book is engaged in a social practice and yet may be doing it in a personal – indeed, idiosyncratic – way. The history of literacy is replete with examples of reading the same texts in widely divergent ways, ways that in some cases come to define a tradition and in other cases to be suppressed as heresy. “It is written” may serve as either a citation of authority or an invitation to dissent.

Yet, the fact that writing and reading have assumed both a prominent place and such diverse forms invites again the question of just what writing is: its relation to other forms of communication, the conventions of interpretation involved, and the competencies recruited and developed in becoming a reader and a writer. The general public, including those of us embedded in literate culture as well as those excluded from it, continues to place the highest value on literacy. Whether expressed through international agencies such as the United Nations, or through the mandates set out by national governments, or, indeed, through teachers and parents themselves, the demand for general and high levels of literacy for the world's children and adults is unequivocal. These mandates assume that there is such a thing as ‘general literacy’ and that it can be achieved most effectively through universal education. Indeed, education is not inappropriately thought of as the induction of the young into the dominant literate practices of the larger society.

Advocacy for literacy and literacy standards, like the concept of literacy itself, is ambiguous. The primary definition of literacy is “the ability to read and write,” but it also carries a second definition: “an acquaintance with literature” – that is, what we may think of as having a liberal education. Much of the debate in government policy over literacy plays on this ambiguity, offering literacy skills for the masses while reserving a liberal education for an advantaged elite. In examining the rise of mass public education in Britain, historian Michael Clanchy (1979, p. 263) noted that:

Opponents of government policy were worried that schools might succeed in educating people to a point where there would be a surplus of scholars and critics who might undermine the social hierarchy. Such fears were allayed by reformers emphasizing elementary practical literacy and numeracy (the three Rs of reading, writing and arithmetic) rather than a liberal education in the classical tradition, which remained as much the preserve of an elite of *litterati* [sic] in 1900 as it had been in 1200.

This ambiguity continues in the ongoing debates about basic and higher levels of literacy. Basic literacy – the ability to understand and produce written texts to some minimally acceptable standard, the preoccupation of the primary (and even secondary) school years – is in tension with the ‘literary’ literacy that is at the core of more elite – that is, specialized – literary and scientific discourse. Some progress has been made in closing this gap by showing that learning to read and write is not only the attainment of cognitive skills but also an introduction to important social or communicative practices, such as managing information for various intellectual purposes or entertaining and expressing oneself. At the same time, schools continue to be faced with the complex task of balancing the needs of the individual learners with the needs of the society that mandates and supports the school.

The current focus on literacy derives in large part from the now almost universal

concern over standards of literacy: nations vying with each other for top billing, international organizations promoting universal literacy, and developing countries enlarging their still meager investments in early education. Just what this goal implicates remains subject to debate. As this volume indicates, there is growing agreement that literate competence includes not only the basic skills of writing and reading but also competence with the more specialized intellectual or academic language that provides “ready and informed access to an encyclopedic range of linguistic varieties” (Langacker, 1991; Berman and Ravid, Chapter 6, this volume). Such varieties are produced in social contexts for special purposes and involve special conventions for their use – conventions that are mastered only through extended participation and practice. The challenge is to identify the kinds of competence that are sufficiently general to allow access to this range of activities. To this end, the study of literacy has found its way into a number of human and social sciences as well as the cognitive and brain sciences. This enlarged scope necessarily draws a number of disciplines, including history, anthropology, linguistics, literature, sociology, and the neurosciences, into a field previously dominated by psychology, education, and international development. The task is to explore the relationships among these lines of inquiry.

Structure of the *Handbook*

Five major transformations in our understanding of literacy have both helped if not to define, then at least to structure the field of literacy studies and provide a basis for the organization of this *Handbook*.

Literacy as a Scientific Subject

The first transformation is the increasing recognition that literacy is not simply one empirical fact among others but rather, for better or worse, a fact that has permeated a

host of social and intellectual practices from meditation to regulation. This reflects Derrida’s famous – if overstated – claim that the “factum of phonetic writing is massive: it commands our entire culture and our entire science, and it is certainly not just one fact among others” (1976, pp. 30–31). As the chapter by Brockmeier and Olson attempts to show, literacy is less a topic than a perspective, an “episteme” that organizes much of the current work in the human and social sciences.

Literacy and Language

The second transformation is the deeper understanding that reading and writing are not simply skills to be acquired but rather components of a distinctive mode of communication with a complex relation to the primary mode of communication – namely, listening and speaking – as well as to other modes of expression and communication (Olson, 1994). Exploring the ways that these two primary modes, the oral and the literate, are related – as discrete symbolic forms with distinctive communicative potentials, as instruments that serve distinctive social and intellectual functions, as forms of competence that recruit somewhat specialized brain processes – is the focus of Part II of the *Handbook*.

In Part II, Peter T. Daniels examines the evolution of the major writing systems of the world and shows how modern forms of writing may be traced back to three language systems in which a single sign could represent a monosyllabic word. Roy Harris shows that the usual assumption that speech is available to consciousness and, hence, readily available for transcription is false; the search for unambiguously interpreted visual signs is what led to the discovery of the implicit properties of speech. Stephen Chrisomalis provides historical evidence for the co-evolution of written signs for language and signs for numbers, with written signs offering one solution to the problems faced by complex societies. Douglas Biber examines an extensive corpus of oral and written texts

to locate the dimensions of similarity as well as the unique properties and advantages of each mode. Ruth Berman and Dorit Ravid show how the distinctive academic potentials of language result from the unique interaction between genre and the written mode; this potential is mastered only by relatively sophisticated writers. Catherine Snow and Paola Uccelli argue for the importance of instructional approaches that will help students develop the "academic language" that is needed for achievement in domains such as maths and science, as well as domains more traditionally associated with language such as literature and language arts. Usha Goswami presents recent neuroscientific research showing that the brain processes critical to reading primarily center on phonological processing even when nonalphabetic scripts are involved. Karl Magnus Petersson, Martin Ingvar, and Alexandra Reis introduce the new lines of cognitive neuroscience research that attempt to isolate the brain functions involved in language and literacy by showing that language is represented in the brain in somewhat different ways in literate as opposed to nonliterate adults.

Literacy and Literatures

The third transformation is the shift from the study of reading and writing as cognitive processes of special interest to psychologists and educators to the broader study of literacy as a set of social practices, or 'literacies.' The former research tradition was well established in the nineteenth century as a branch of psychology by such luminaries as Cattell (1900) and Huey (1908). Reading was seen as a mechanical, cognitive process sufficiently uniform that it was assumed to be the same across all history, culture, and development. The transformation was to recognize that different readers in different historical periods or in different cultural contexts might create and engage with written documents in dramatically distinctive ways. Reading privately, reading in groups, reading and writing in school, reading and writing in science, searching for information,

making lists, writing curses, writing recipes and programs, signing contracts, and so forth involve special conventions for use and make different demands on readers. Such activities are 'social practices' often embedded in larger social and institutional contexts. Learning to read and write in these contexts is, in part, to learn the conventions, norms, and standards for compliance if one is to read a prayer book, a law text, or a scientific article. Consequently, literacy has come to be seen as not only familiarity with a script but also as familiarity with more specific literate practices ranging from those of the dominant institutions such as literature, law, and science to local literacy practices such as exchanging personal letters and organizing reading circles.

In Part III, Elizabeth Long provides an autobiographical account of the social dimensions of quite different ways of reading, thereby undercutting the "ideology of the solitary reader." Heather Murray examines the two senses of "conventions" of reading: the assumptions that readers make about how to "take" a text and the coming together of readers as in a collective. She sets out the history of these conventions in nineteenth-century Upper Canada as readers came together in various groups or reading circles for mutual enjoyment and enlightenment. Carolyn Steedman examines eighteenth-century diaries for indications of how the idea of a life came to be seen as bound up with having a life story, centering on a private self shaped not only by experience but also by one's reading and learning to read and otherwise complying with the demands of literate institutions. Lisbeth Larsson traces the relationships between women's reading habits and perceptions of women's literacy to women's more generalized self-perceptions. Karine Chemla examines ancient mathematical texts and shows that reading them requires not only mathematical knowledge but also the conventions for writing and reading about that knowledge. Stephen Norris and Linda Phillips examine a number of conceptions of "scientific literacy" and show that they all collapse an important distinction. Norris and

Phillips defend a *fundamental* sense of scientific literacy as the knowledge of the special conventions involved in writing and reading about science and they reject a *derived* or metaphorical extension of the term that includes knowledge of the substantive content of science possessed by the experts in the field. Two chapters examine how information technology is altering not only our conception of literacy but also our literate practices. The first, by Teresa Dobson and John Willinsky, examines what happens to knowledge and to notions of competence when confronted by the new demands of digital literacy. The second, by James Gee, examines how literacy is implicated in computer games and popular culture and argues that even learning to read should be seen as involving not only mapping from signs to sounds but also as introducing specialized situational contexts of meaning.

Literacy and Society

The fourth transformation is a revised conception of the relation between literacy and social change. Just as reading and writing were once seen as involving a more or less mechanical and universal set of cognitive processes, the social implications of literacy were seen as similarly universal – the same across all history, culture, and development. In a word, literacy was seen as the route to social and democratic development. Indeed, to this day, social commentators link illiteracy not only with crime and poverty but also with authoritarian and dictatorial regimes and the absence of the rule of law. As literacy has come to be seen as a constituent of rather diverse and distinctive social practices, with different properties, uses, and consequences in different kinds of society, it has come to be recognized that literacy is as likely to be an instrument of social control as it is an instrument of liberation; much depends on context and use. Whereas eighteenth-century philosophers such as Vico, Condorcet, and Rousseau had advanced theories linking the evolution of the alphabet to the advance of Western civilization, only in the late twentieth cen-

tury did historians such as Cipolla (1969), Harris (1989), Thomas (1989), Kaestle et al. (1991), and Lockridge (1974) show that the presumed link between writing and civil society was far less clear than advertised. At the same time, anthropologists such as Street (1984); Heath (1991); Finnegan (1988); Besnier (1991); Barton, Hamilton, and Ivanic (2000); Boyarin (1993); Waquet (2003); and others showed that literacy may be taken up in radically different ways in different societies at different times and with different consequences. The diverse relationships between literacy and society are explored in Part IV of the *Handbook*.

Brian Street provides a detailed criticism of the notion that literacy is a single uniform process with uniform social implications. He provides ethnographic evidence that shows how different societies exploit writing and reading in radically different ways, yet in ways appropriate to those societies. Rosalind Thomas examines the sometimes contradictory ways in which educated elites in classical Roman and Greek societies used, and misused, writing for intellectual and social purposes. Nicholas Everett guides us through the late Middle Ages to show how literate elites defined and managed intellectual and social life while maintaining a radical discontinuity from the laity, a gap that remained until the invention of print and mass literacy. The much-misrepresented and little-understood topic of Chinese literacy in both historical and modern terms is addressed by linguists Feng Wang, Yaching Tsai, and William S.-Y. Wang. The reciprocal relationships between literacy and culture are central to their analysis. Niloofar Haeri examines the contradictory relationships between classical Arabic – a sacred and elite form of language and literacy – and the requirements of mass education and mass literacy. She argues the need for urgent reform if the Arab world is to overcome the low literacy rates associated with uneven social development. Frits van Holthoon examines the relation among literacy, modernization, and the evolution of “civil society” in the early modern period.

Literacy and Education

A fifth transformation involves a new understanding of the processes involved in the acquisition of literacy by both children and adults. Whereas a tradition going back to antiquity acknowledged that literacy, unlike speech, had to be taught and that learning required little more than attention and practice, modern research has indicated the wide range of relevant knowledge that must be brought by the learner to the learning task if high levels of literacy are to be achieved. These competencies include both cultural predispositions and rich implicit knowledge of language that must be recovered and reconfigured in the process of learning and in the design of successful educational programs. The study of an adult's learning to be literate brings these assumptions and predispositions to the fore in that, unlike children, adults take up literacy only when they see it as relevant and instrumental to the achievement of their own purposes and goals.

Nowhere is the transformation of an understanding of literacy and literacy acquisition more conspicuous than in the pedagogies devised. A.-M. Chartier traces the evolution of these pedagogies in Western Europe from the sixteenth to the twentieth centuries as attention shifted from a focus on signs to a focus on understanding and, at the same time, from a focus on literal memory of texts to a focus on semantic understanding. Liliana Tolchinsky shows how aspects of the visual forms of writing come to be learned by children both before and as they work out the complex relationships between speech and writing. Bruce Homer examines the ways that one's knowledge of an oral language must be "meta"-represented in order for visual signs to become signs for spoken language; the result is an increasingly high level of metarepresentational competence, specifically for the management of text. Alison Garton and Chris Pratt examine literacy from a sociocultural perspective to show how, especially for middle-class families, literacy development is embedded in oral social practices in the home. Becom-

ing literate is a matter of increased competence in participating in various roles in these social processes.

Although much of literacy research is confined to modern Western classrooms, important advances in understanding literacy and literacy development come from attempts to advance literacy competence around the world in both children and adults in societies with low or negligible levels of literacy. Joseph Farrell examines the extensive current attempts to enhance literacy levels around the world under the aegis of the United Nations' declaration of literacy as a human right by distinguishing between programs that are effective from those that are not. Without exception, those programs that are successful give extraordinary attention to the agency of the learners, providing them with materials that they either alone or in small groups *can work through themselves*. Thomas Sticht examines the implications of the ironic fact that whereas even in developed countries, a substantial segment of the society – perhaps as many as one in ten – lacks functional literacy skills, the persons so described neither experience their literacy limitations as a problem nor are they willing to invest the effort to become more literate. He considers possible routes for addressing this anomaly. Daniel Wagner examines the role that new technologies have begun to play in literacy programs in the attempt to meet the increasing concerns about international development. David Olson considers some of the implications of these more recent advances in the study of literacy for the formulation of realistic educational goals and policies. These include broadening rather than narrowing what we mean by being literate, recognizing the conceptual challenge in achieving a high level of literate competence, and acknowledging the difficulties of imposing literacy on reluctant learners.

These themes, then, spell out the structure of the *Handbook*. Although the book attempts to sample appropriately from a burgeoning field, it also builds on and relies to a large extent on work not well represented in the volume. Literacy has long

been the eminent domain of the educational sciences. The standard compendium of work on the topic is the three-volume *Handbook of Reading Research*. The first volume (Pearson, Barr, Kamil & Mosenthal, Eds.) appeared in 1984 and summarized various lines of research on reading, such as word identification and comprehension, family and social variables associated with literacy, and pedagogies seen as facilitating reading acquisition. In the eight-hundred-page second volume (Barr, Kamil, Mosenthal, & Pearson, Eds.) published in 1991, two of the three sections were devoted to literacy. By the third volume (Kamil, Mosenthal, Pearson, & Barr, Eds.), published in 2000, all five sections of the book were allocated to or at least described in terms of literacy. The *Handbook of Children's Literacy* (Nunes & Bryant, Eds., 2004) takes the topic out of the school and into the society more generally. The recent *Handbook of Research on Writing* (Bazerman, Ed., 2008) sets out complementary research on writing and learning to write. Two useful anthologies should also be mentioned. The one authored by Cushman, Kintgen, Kroll, and Rose (2001) is a collection of thirty-eight previously published works on themes including technology, cognition, history, development, culture, and social change. Beck and Olah (2001) offer an anthology of major works on literacy published by the *Harvard Educational Review*. Extensive reviews of the diversity and effectiveness of local, national, and international literacy programs for both children and adults is well represented in the UNESCO-sponsored volume *Literacy: An International Handbook* (Wagner, Venezky, & Street, Eds., 1999). *The Making of Literate Societies* (Olson & Torrance, Eds., 2001) presents a series of reports on indigenous local literacy programs sponsored by non-governmental organizations (NGOs) in Africa, Asia, and the Americas. A major section of the *International Handbook of Educational Policy* (Bascia, Cumming, Datnow, Leithwood, & Livingstone, Eds., 2005) is devoted to the topic of "literacies" with an emphasis on how research and theory, as well as tech-

nology, bear on literacy policy and practices around the world, noting that programs are often planned without acknowledging that the targeted learners often do not feel a need for literacy.

Unlike the pedagogical thrust of those handbooks and anthologies, this volume highlights the shift from a prescriptive to a descriptive orientation to literacy. Most studies of literacy, particularly studies of reading and writing, are almost exclusively devoted to exploring ways of extending either the range (to other societies) or the depth (in individuals) of literate competence, primarily through the school. Studies of reading failure, understandably, are motivated by the desire to advance the literacy skills of poor readers. From that perspective, literacy tends to be seen as an intrinsic 'good'; the problem for research was to devise ways of making its resources available to everyone (Scribner, 1984). Hence, the focus was primarily prescriptive and pedagogical, exploring ways of teaching reading or exploring factors that limited the acquisition and spread of literacy. This, of course, remains the primary concern of policy makers and educators and remains a central concern, whether addressed through either international comparisons or literacy programs.

The descriptive as opposed to the prescriptive approach to literacy arose as disciplines other than psychology and education began to address issues of literacy. There is now a rich literature reflecting the shift from literacy as a cognitive skill to literacy as a social practice, a shift first evident in the debates about the cognitive consequences of literacy. This perspective came into focus through both the psychological writings of Vygotsky (1962, 1978) and the historical and anthropological research of Goody and Watt (1968), Havelock (1982, 1991), Ong (1976), and, of course, McLuhan (1962). More recent psychological and anthropological studies of literacy were increasingly critical of any simple or single link between literacy and social change. This is an area of considerable dispute as scholars try to work out precise relationships between the cognitive processes

specifically recruited in learning to deal with a writing system (Morais & Kolinsky, 2004; Olson, 1994; Vernon & Ferreiro, 1999) and those recruited by the social uses of writing and reading in diverse social contexts (Basso, 1974; Besnier, 1991; Boyarin, 1993; Heath, 1983; Howsam, 1991; Murray, 2002; Scribner & Cole, 1981; Street, 1995; Willinsky, 1990).

It is overly optimistic to say that these overlapping spheres of research have begun to define a coherent field with its own expertise, its own distinctive literature, and its own research methods. Contacts among workers in these areas are seriously limited and sometimes marked by disciplinary rivalry. Some attempts at cooperation appear in the numerous emerging graduate programs in many universities bearing such names as Language and Literacy, Literacy Studies, Written Culture, and The History of the Book. Although research on the various aspects of literacy now appears in the books and journals of a number of disciplines, there is still no standard text or document that helps to define literacy as a field, or to alert researchers of their potential colleagues, or, most usefully, to suggest promising areas of interdisciplinary research and theory. Contributors to *The Cambridge Handbook of Literacy* aim to satisfy that need.

The *Handbook* is addressed to senior undergraduates; to graduate students in the fields of education, psychology, linguistics, history, anthropology, sociology, and literary theory; and to academics and informed laypersons interested in the scholarly analysis of the role of literacy in mind and society.

David R. Olson and Nancy Torrance,
Editors
Toronto, November 30, 2008

Note

- 1 The province of Ontario requires all students to meet a literacy standard if they are to graduate from secondary school. This standard is defined independently of specialized disciplinary knowledge.

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