

MINDING METAPHORS: RETHINKING THE ECOLOGY OF WRITTEN LANGUAGE

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Abstract: The field of reading and literacy studies has undergone large changes in the past three decades. A branch referred to as New Literacy Studies has established itself alongside the traditional school of psychological reading research, and in general there has been a continuous effort to bring together individual and social aspects of literacy. The approach of the present article is rooted in the rhetoric of science and explores metaphorical barriers to cross-disciplinary understanding. More specifically, it revisits David Barton's metaphorical understanding of literacy as an ecology of written language, originally intended to draw the social and the psychological together. The article discusses the marginalisation of the individual in Social Turn theories in general and in the ecology framework in particular. An understanding of involvement and eventness is suggested that makes room for the individual and thus also improves the precision of the framework. Rethinking ecology along this line of thought might enrich the ecology metaphor in the study of reading and literacy in a way that makes it meaningful from a psychological perspective.

Key words: *Reading, literacy, rhetoric of science, ecology, time, eventness, involvement*

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“Every entry into the sphere of meanings is accomplished only through the gates of the chronotope.” (Bakhtin, 1982, p. 258.)

1. INTRODUCTION

The field of reading and literacy studies has undergone large changes in the past three decades. Reading and literacy research is now a multidisciplinary field spanning various theoretical frameworks, methodologies and research interests. Mapping this complex field of research is a task that can be carried out in different ways and with different outcomes, depending on selection and focus. This article deals with the borderland between the humanities-based *New Literacy Studies* (NLS) and the psychological tradition of reading-comprehension research. More specifically, it explores the idea of an ecological metaphor of literacy as a possible common framework for discussing literacy across the gap between psychological individualism and purely social perspectives. The method used will be rhetorical analysis, focusing on metaphorical conditions for cross-disciplinary dialogue and discussing *involvement* and *eventness* as key concepts in a shared metaphorical framework.

The idea of bridging the individual and the social – in itself a metaphor – is old. Even the idea of making psychology and the NLS talk to each other is an old one. David Barton suggested *ecology* as a metaphorical framework that allows different strands of literacy research to communicate in his book *Literacy: An Introduction to the Ecology of Written Language* (Barton, 1994, 2007). This metaphor, he claimed, could integrate social, psychological and historical aspects of literacy in a common framework. It is consistent with other biological or organic references used in the discussion of reading and writing, such as “domestication” or “the soil in which the growth of literacy takes place” (Barton, 1994, p. 30), and the idea of ecology has already been applied to other types of human activity as a way of situating psychological activity in a more complete and dynamic social context where different aspects interact ((Barton, 1994, p. 29).¹ Barton suggests a similar approach to the uses of written language. Literacy would then encompass different domains and situations where people interact with written language. This interaction is conceived of as *events* which are part of larger patterns of events, called *practices*.

NLS researchers have conducted ethnographic studies of literacy practices from all over the world (Street, 2003, p. 79). By contrast, the NLS has shown only marginal interest in the individual person involved in such a literacy event (Gee, 2000, p. 190). This has traditionally been the focus of psychological literacy research. Despite this difference, bridging the gap between the social and the individual aspects of literacy has nevertheless been an ambition in both camps, and it remains a relevant topic of research. Given the desire for a theoretical reconceptualisation evident in both psychological and social research communities (Fox & Alexander, 2009; Gavelek & Bresnahan, 2009; Baynham & Prinsloo, 2009; Gee, 2000; Street, 2003),

¹ Barton’s key example is Neisser’s work on the ecology of memory (Neisser, 1982), focusing on how people use memory in natural contexts in their everyday lives.

there seems to be good reason to revisit the ecological metaphor as a potential common framework for talking about literacy.

This article will explore the ecology framework with a focus on metaphorical consistency and precision, more specifically as regards aspects concerning the status of the individual. A crucial dual challenge inherent in such an effort is to make room for individual involvement in literacy events and, vice versa, to make room for eventness in the understanding of individual involvement. I will suggest a reinterpretation of both concepts as categories of activity related to real time. First of all, however, I will identify the rhetorical basis of the analysis.

2. METAPHOR AND KNOWLEDGE IN THE RHETORIC OF SCIENCE

The rhetoric of science has its rightful place in the intellectual climate of our time, according to Allan Gross. Its task is to analyse the claims to knowledge made by science (Gross, 1996, p. 3) by applying rhetorical and hermeneutic theory and methodology – classical and new – to the study of scientific prose as a field of persuasive discourse. Even Gross, himself rather a radical rhetorician in relation to the question of whether there exists anything purely scientific that escapes linguistic mediation, will not deny the brute facts of nature (Gross, 1996, p. 4). His point is that such facts are not identical with scientific knowledge: “only statements have meaning, and of the truth of statements we must be persuaded” (Gross, 1996, p. 4). Of particular interest here is the use of models, analogies and metaphors as means of persuasion.

Models, analogies and metaphors all share the function of drawing attention to resemblances (Baake, 2003, p. 76f.). Theorising about and analysing the work of metaphor is an old research interest, but also a field undergoing continuous renewal in new areas.² Ken Baake explicitly addresses the relationship between science and rhetoric in his book *Metaphor and Knowledge* (2003), identifying a strong programme and a weak programme in the rhetoric of science. The former claims that rhetoric produces science, the latter that science and rhetoric converge when scientific data are written up in articles and reports. Baake positions himself somewhere in between, acknowledging that language is a tool that is used in the search for knowledge, but not the only tool (Baake, 2003, p. 54). The challenge, as he sees it, lies in using language with care, based on an analytic awareness of the way words both represent and shape reality (Baake, 2003, p. 55). This challenge is in fact common to rhetoric in general, particularly as regards metaphor, Baake claims (Baake, 2003, p. 55).

² *Metaphor is an acknowledged perspective on issues of communication and access in education* (cf. Askeland, 2008, and Pramling, 2006). *Cognitive studies of metaphor have pursued the work of metaphor into the meaning-making of our everyday lives* (Lakoff & Johnson, 1980) and *further into the embodied mind* (Lakoff & Johnson, 1999). Cf. *the Cambridge Handbook of Metaphor and Thought* (Gibbs & Barnden, 2008) for an overview of the multidisciplinary of metaphor research.

Baake suggests a frame for understanding the work of metaphor. He calls it *harmonics*, which in itself is a metaphor.³ His model illustrates how the work of metaphor pervades a complex theoretical system. Concepts and metaphors acquire meaning in relation to other parts of the complex, becoming larger and more encompassing. Each metaphor used in science will resonate more or less harmoniously with the overall “score”, Baake argues, expanding the harmonics metaphor (Baake, 2003, p. 61). These scientific scores he compares to Kuhn’s concept of the *paradigm*. In other words, Baake’s *harmonics* does what a metaphor is supposed to do: it explains something through comparison with something else – scientific imprecision is explained through comparison to a musical performance which is out of harmony with its sound environment.

My analysis of ecology as a shared metaphor for talking about literacy corresponds to Baake’s understanding of metaphorical harmonics. A major point will be metaphorical imprecision, or rather the possibilities of a higher degree of consistency within the metaphorical score. I will not pretend to be fully committed to the idea of harmonics as a frame of reference. What I do share with Baake is the understanding of the rhetorical challenge that lies in using language with care in ways that create non-distorted knowledge (Baake, 2003, p. 55).

3. LITERACY – THE ECOLOGY OF WRITTEN LANGUAGE

“Prior to 1980, hardly any books had literacy in the title”, according to Barton (1994, p. 23). After 1980, however, the term has become a key concept in different fields of research, with different meanings. The metaphorical usefulness of *literacy* has been pointed out ever since the concept appeared on the stage of scientific enquiry,⁴ and the meaning of the concept has been contested since the very beginning.⁵ To this should be added that “literacy”, as is often the case with popular concepts, has a connotative field characterised by high productivity.⁶ During the 1980s and 1990s, the term “literacy” meaning something like “ability” was exported to other domains: “media literacy”, “digital literacy”, etc. This was how “literacy” became

³ According to Baake (p. 73f.), his concept of metaphor harmonics is identical to Jacques Derrida’s concept of the freeplay of the signifier. If that is so, one might wonder what is the point of the new concept, but that is not the objective here. In this article I will use the more general aspects of Baake’s idea.

⁴ In her 1984 article “Literacy in three metaphors”, Sylvia Scribner addresses the ambiguity and definitional challenges related to the concept of “literacy”. She focuses on three metaphorical meanings: literacy understood as adaptation (cf. functional literacy), literacy as power (based, among other things, on Paolo Freire’s work on literacy as empowerment) and finally literacy as a state of grace (i.e. being cultured) (Scribner, 1984). Scribner also outlines the tension between literacy understood as an attribute of individuals and “the single most compelling fact that literacy is a social achievement” (Scribner, 1984, p. 7).

⁵ Cf. Brian Street’s distinction between an autonomous and an ideological model of literacy (Street, 1984).

⁶ Cf., e.g., Lankshear, 1999, or Lankshear & Knobel, 2003, for a brief overview of this development as seen from the NLS point of view. Alexander & Fox (2004) give an overview from a psychological point of view.

another word for “competence” – i.e. a competence metaphor – which is today to be found in several compounds. For example, PISA, the international comparison of educational achievements, tests students in mathematical, scientific and reading “literacy”.

The social literacy studies of the past decade show a further shift in focus towards new literacies associated with post-typographic forms of textual practice and with multimodality, which seem to be acknowledged as a theoretical challenge in the study of traditional reading as well.⁷ “Literacy” today may thus refer to the opposite of being illiterate; to reading and writing in general; to a given person’s abilities in the field of reading and writing; to a cultural sphere based on the distribution among its members of written texts; to the ability to function in a literate society; to the ability to do things in general; and to certain modern textual domains that we must relate to.

The construction of a consistent metaphorical framework for talking about literacy is the main ambition of Barton’s book. He not only suggests a metaphor derived from biology that might unify existing talk about literacy but also proposes that written language should be studied in an ecological way:

Originating in biology, ecology is the study of the interrelationship between an organism and its environment. When applied to humans, it is the interrelationship of an area of human activity and its environment. It is concerned with how the activity – literacy in this case – is part of the environment and at the same time influences and is influenced by the environment. An ecological approach takes as its starting-point this interaction between individuals and their environment. (Barton, 1994, p. 29.)

This metaphorical application of “ecology” is not new. That concept is used in various areas, including both social and psychological traditions. To Barton, however, this broad application is an advantage (Barton, 1994, p. 29f.). He considers that it provides a useful and appropriate way of talking about the conceptual field of literacy in its present shape, and of bringing together different strands within that field (Barton, 1994, p. 32). Indeed, he presents a set of ecological terms – “like *ecological niches, ecosystem, ecological balance, diversity and sustainability*” (Barton, 1994, p. 31.) – which can provide a framework for a discussion of literacy. These terms can all be applied to the human activity of using reading and writing, and they allow a more comprehensive approach to the contextual aspects of literacy, he claims:

Rather than isolating literacy activities from everything else in order to understand them, an ecological approach aims to understand how literacy is embedded in other human activity, its embeddedness in social life and in thought, and its position in history, language and learning (Barton, 1994, p. 32).

⁷ In an article in *Theoretical Models and Processes of Reading reviewing 50 years of reading research*, Patricia Alexander and Emily Fox call for a grand theory of reading based on the best aspects of different eras of research (Alexander & Fox, 2004). Five years later, in the *Handbook of Research on Reading Comprehension*, they go one step further and acknowledge that we may need a more thorough reconceptualisation, mainly because of the proliferation of digital texts (Fox & Alexander, 2009).

Such an ecological framework represents an integrated view of literacy which makes it possible to bring together the social, the individual and the historical. To work in this way, however, the metaphor must be acceptable to both camps – psychological and social reading research – and compatible with their respective views, not in the sense of being a compromise, but rather as a holistic theory that is also applicable to research focusing on individual or social features alone. A deep understanding of the interface between the individual and his or her environment is a prerequisite for such a framework. In his book on the ecology of written language, Barton points in such a direction, but he does not pursue the idea outside the realm of NLS reasoning, thus steering clear of the border – or gap – between a psychological and a social interest in literacy and thus also leaving unnecessary inconsistencies unchallenged.

4. ECOLOGY REVISITED: METAPHORICAL INCONSISTENCIES

Over the past 30 years, sociocultural theory has been productive in both psychological and social research on literacy. In reading-comprehension research, Vygotsky's *more knowledgeable other* and his *zone of proximal development* have been implemented in several different programmes for strategy-oriented instruction (Pressley & Wharton-McDonald, 2002), albeit perhaps in a restricted sense (Gavelek & Bresnahan, 2009). On the social side, in the NLS, there has been from the very beginning a process of demarcation against the psychological tradition of reading and writing research. James Paul Gee (2000) addresses this tendency in a retrospective discussion of *Social Turn* theories, claiming that:

What is often left out in discussions of the mutually constitutive nature of words and contexts is the person as agent who utters (writes) the words with (conscious and unconscious) personal, social, cultural and political goals and purposes. Of course, in social turn theories, the person's deeds and body are part of the situation or context, but the person as an actor engaged in an effort to achieve purposes and goals is left out as an embarrassing residue of our pre-social days. (Gee, 2000, p. 190.)

Gee here implicitly (“embarrassing residue”) explains the tendency to avoid the individual as part of the demarcation process – i.e. as part of an effort to emphasise the *newness* of the NLS compared with the psychological tradition. Barton's 1994 book is a genuine attempt at finding a common framework for talking about literacy, but it does not escape Gee's general criticism.

In Barton's initial presentation of the ecology metaphor quoted above, the relationship between literacy as a *human activity* and its environment is compared to the relationship between the individual organism and its environment. When applied to humans, Barton says, ecology refers to the inter-relationship of an area of human activity and its environment. In the passage quoted, Barton crucially yet implicitly postulates that literacy is an activity and nothing other than an activity. The most important consequences of this postulate concern the status of the individual person.

Barton, like the NLS in general, is concerned with cultural spheres in the sense of activities in which writing is involved. These are described as cultural activities among other cultural activities. What is conceived of as individual in Barton's mod-

el is an *area* of human activity. The ecological metaphor he uses to describe human activity is concerned with how one activity – literacy in this case – is part of its environment, and how it is influenced by and influences its environment (Barton, 1994, p. 29). What implicitly represents the *environment* in Barton’s application of the ecology metaphor, then, are other *activities*. The model thus describes a relationship between one activity and other activities. The metaphorical transfer goes from the source domain of live creatures and their environment to the cultural distribution of activities.

By excluding the individual living person from the relational logic of the ecology of written language, Barton limits the extension and depth of his metaphorical framework. If we push this argument to the extreme we could say that Barton, in his eagerness to avoid the individualism of the psychological tradition, ends up with the opposite extreme: some kind of socialism or collectivism where theorising begins at the level of social structure, pushing the meaning of the individual person to the margins. In other words, the social and the psychological approaches thus both seem to isolate *aspects* of literacy as the basis for their definitions. Psychological individualism defines “literacy” separately from its context, whereas Barton and the NLS seem to define “literacy activity” separately from aspects of the individual. Brian Street has referred to the first of these tendencies as the *autonomous approach to literacy*, thus highlighting the focus on individual skills (Street, 1984). It is tempting to claim that Barton correspondingly establishes an *autonomous view of activity*.

This limitation of the scope of the metaphor is not necessarily wrong, but nor does it seem to be necessary. The ethnographic approach to literacy does entail talking to real people in and about their environment of written language. The research interests of the NLS, however, have traditionally been to describe and analyse the complexity of literacy *practices* on the basis of observed literacy *events*. This is one of the challenges addressed by Mike Baynham and Mastin Prinsloo in their book *The Future of Literacy Studies* (2009): “[h]ow to retain the focus on activity in the analysis of practices” is a challenge because there is “an analytic bias towards losing the performativity of the object of analysis and reducing it to a set of representations” (Baynham & Prinsloo, 2009, p. 12f).⁸ The NLS researcher typically only observes situated experience of literacy activity and then makes a detached account and analysis of that experience. This entails the dilemma of leaving the real-time activity behind at the point when the analytical abstraction begins.

This is where a consistent metaphorical framework covering the overall ecology of written language would serve its purpose. It would make the real-time individual activity meaningful, and it would provide important assumptions to be incorporated in the NLS arguments regarding social structure and literacy practices. As it is, the metaphor does not apply very well to concrete individual action as it unfolds in real time. Thus the metaphor is also cut off from psychological interest in literacy activity. This inconsistency in the metaphorical framework can be remedied, however, in

⁸ In the same book, the *event* is also discussed and reconsidered, mainly in relation to a shift from typically locally situated activity towards transcontextual flow (Baynham & Prinsloo, 2009, p. 11f.).

which case a shared understanding of the real-time interface between the individual's action and the environment is crucial. This interface is relatively marginal in both psychological and social research, and to the extent that there are any theories covering it, they derive from within the theoretical core of each tradition. Mending the metaphor would require the interface to be theorised about on its own premises, albeit with sideward glances cast both at the psychological interest in intra-mental aspects and at the social interest in inter-mental, cultural and historical aspects of the activity.

What I am suggesting touches upon the big question of translation across paradigms and may come across as naïve or even provocative. The simple idea underlying my discussion, however, is that different perspectives might come together if only they survey and adjust certain marginal aspects of their own assumptions. The rest of this article will be concerned with the possibility of mending the ecology metaphor, partly by evoking Vygotsky, Bakhtin and Wertsch, partly by addressing *involvement* and *eventness* as two critical features of the interface between individual and environment. *Involvement* is an important concept in psychological reading research (Guthrie & Wigfield, 2000) and the *event* is the basic unit of analysis in the NLS. I will suggest an adjustment to the understanding of these concepts in order to connect them to *real time*, to the continuously ongoing present of the individual person's life.

5. "MAKING THE LINK BETWEEN MEDIATED ACTION AND SOCIOCULTURAL SETTING"⁹

The individual person is not a problem in sociocultural theory in general, at least not according to its founding fathers. In a footnote in the first edition of his book, Barton points in this direction, but without elaborating on it: "Vygotsky's approach, especially when united with the works of Bakhtin, can be very powerful, as in Wertsch", he tells us (Barton, 1994, p. 220). All of these three – Bakhtin, Vygotsky and Wertsch – represent a school of thought where emphasis is placed on the exchange between and interconnectedness of individuals and the social environment, thus making broader use of the ecological analogy.

Vygotsky (1978, 1986) emphasises mediation and the social origin of verbal thought as the basis for studying the development of verbal thought. Bakhtin (1982, 1986) conceives of language and communication as a social and historical process unfolding on both a macro and a micro level of discourse. Wertsch's contribution is that he incorporates Bakhtin's conceptions of *utterance*, *voice*, *social language* and *dialogue* into a "general sociocultural approach to mind" (Wertsch, 1991, p. 17) derived from Vygotsky's writings. "Making the link between mediated action and the sociocultural setting" (Wertsch, 1991, p. 121) is a major explicit ambition for Wertsch, as it is more implicitly for Vygotsky and Bakhtin.

This link, or *interface*, between mediated action and sociocultural setting is where reading and writing actually *happen*. The reader engaged in a text relates to a textual world, situated in a specific setting in the physical world. Psychological read-

⁹ This is a heading quoted from Wertsch's book *Voices of the Mind* (Wertsch, 1991, p. 121).

ing research takes an interest in the reader's *involvement* or *engagement* as an important aspect of overall reading performance. The NLS typically takes an interest in the unfolding of the *literacy event*. Wertsch, however, directs our attention towards the domain *between* individual involvement on the one hand and the situational setting on the other, suggesting a possible research focus which is "not psychological, or even primarily sociological, but rather cultural" (Wertsch, 1991, p. 124). It can be discussed whether this approach is a way of bridging the gap between the social and the psychological perspectives or would rather establish a new point of view in between them. Nevertheless, with its focus on the border between the psychological and the social, Wertsch's argument is clearly compatible with the idea of using an ecological metaphor to talk about literacy. Still, even Wertsch steers clear of discussing the importance of time and Bakhtin's idea of *eventness*.

6. INVOLVEMENT AND EVENTNESS IN THE ECOLOGY FRAMEWORK

"Every entry into the sphere of meanings is accomplished only through the gates of the chronotope¹⁰", Bakhtin writes (Bakhtin, 1982, p. 258), and over and over again he highlights the importance of the open-ended present of the event. Bakhtin thus sees the event as a category situated in time and space. To my discussion, the more important aspect is the time dimension of the event, which is largely ignored in current literacy research. The *open-ended present* has two important implications. First, it places the event in the flow of real-time moments, thus connecting it to the sphere of existential being, action, choice and judgment. Second, the event is open-ended towards the future, meaning that its outcome is never given or determined. This understanding of *eventness* has implications concerning ethics and individual freedom, and it is rooted in an interest in everyday life. Bakhtin formulated it in a philosophical style in his early writings, but it also permeates his later work on dialogue.

Bakhtin's concept of "dialogue" refers to three levels of abstraction (cf. Morson & Emerson, 1990, p. 130). First, it applies to language in general as all language use is dialogical in that all utterances are responses to earlier utterances and anticipate future response. Thus the great dialogue of human history is open at both ends: there is no first word, and nor will there ever be a last word; all there is are responses to responses. Second, on a micro level every word contains the meanings of other words and the intentionality of the present speaker, making every utterance an arena for dialogical relations. Using language means relating to others by responding and anticipating responses. Third, we can relate to others and to other voices in a more or less dialogical manner, by ignoring or acknowledging their existence. When Bakhtin juxtaposes the dialogic and the monologic word, he does so in this third sense, highlighting the intentionality of the speaker or the ideological features of a particular social language.

Every utterance is made from the standpoint of an individual person, from a place which is *unique* in the sense that no one but the person him- or herself can fill this place and which is at the same time *unified* in the sense that every one of us has such a unique place to fill. Filling this place is a recurrent task; it cannot be done

¹⁰ *Chronotope* (from the Greek χρόνος "time" and τόπος "place") means "time-space".

once and for all. *Every moment* of our life we choose how to respond to our surroundings – not responding is also a response. This is the background to Bakhtin’s somewhat poetic paradox of the unique and unified *event* of being.¹¹ One implication of seeing being as an event is that life takes place at the border between the past and the future, i.e. in the open-ended present.

When Bakhtin refers to *eventness*, he does so in order to activate the whole range of meaning and ethical implications related to this understanding of being in the world and in the world of language. Responding to others is a matter of being in the world, of filling the place that is for me only. When Bakhtin talks about “responsibility” in this context, this word thus carries two intertwined meanings: being is a matter of *responding* to situational demands and possibilities, and the individual is *responsible* for the responses he or she makes. This conception of responsibility concerns being *present* and thus also being *involved* in what happens here and now. The individual person is thus situated – or rather repeatedly constituted – in the real-time present, on the border between him- or herself and others, between past and future, and between the microcosmos of the single utterance and the macrocosmos of dialogue.

What Bakhtin might provide is an understanding of real-time individual action that might be acceptable to both psychological and social research. It obviously preserves the real-time aspect of activity, which is an explicit aim of the NLS. The biggest challenge is that it calls for a reconsideration of the “event” – or at least “eventness” – concept. This challenge, however, has already been expressed explicitly within the research community, as we have seen (cf. Baynham & Prinsloo, 2009). The process associated with that challenge might be a good opportunity to consider Bakhtin’s sense of eventness as well.

In the psychological school of literacy research, involvement, motivation and engaged action have largely been studied on the basis of self-report data, i.e. retrospective data partly based on reflection. Obtaining data from the real-time present of the activity is a difficult challenge,¹² but even if practical issues and research interests pull away from this link between mediated action and social environment, it is possible to strive for compatibility with a general understanding of the link and of Bakhtin’s conception of responsible involvement.

The benefits of such a shared framework for talking about literacy – a theory based on the active use of the ecology metaphor – would probably be substantial for education, and even more so for the public discussion about education. When it comes to literacy education, such a framework strongly supports a developmental perspective on student performance and assessment, and it has implications for how access to participation in school discourse can be supported in a way that compensates for students’ different social, economic and discursive backgrounds. The emphasis placed in that framework on individual responsibility and judgement as an

¹¹ *Being as an event is the main theme of Bakhtin’s early essay entitled Toward a Philosophy of the Act (Bakhtin, 1993). “The unique and unified event of being” is a paraphrase made by Michael Holquist in his interpretation of Bakhtin’s overall writings in his book Dialogism (Holquist, 1990, p. 24).*

¹² *Accurate measures of effort and immersion might be an interesting starting-point.*

aim of development, based on experiences of being involved in meaningful activity, points towards a holistic perspective on literacy education that might also counter-balance the current global tendency to favour objective measures of academic achievement.

7. CONCLUDING REMARKS

The main objective of the present article has been to examine ecology as a metaphorical framework for talking about literacy across the gap between psychological and social research traditions. Ecology is an organic metaphor, and any comparison of a cultural world – or, more specifically, a world of meaning – to the natural world certainly has limitations that must be kept in mind. But this metaphor may also be able to help bring different perspectives on literacy into dialogue, as Barton (1994) suggests. I have pointed out some inconsistencies in Barton’s interpretation of “ecology”, and I have discussed Vygotsky, Bakhtin and Wertsch’s (1991) approach to bridging – or rather theorising about – the gap between a psychological interest in the mediated action of the individual and a social interest in the sociocultural setting. Finally, I have suggested a reinterpretation of key terms from the social and psychological traditions, respectively – *eventness* and *involvement* – as categories related to real time, to the present moment of ongoing activity. This interpretation adds to the deep logic of the ecology metaphor, and it points to research challenges on both sides of the gap: exploring *involvement* as an ongoing literacy activity, and incorporating Bakhtin’s idea of *eventness* into sociocultural literacy accounts.

REFERENCES

- Alexander, P.A., & Fox, E. (2004). A Historical Perspective on Reading Research and Practice. In R.B. Ruddell & N.J. Unrau (Eds.), *Theoretical Models and Processes of Reading* (vol. 5, pp. 33–68). Newark, DE: International Reading Association. <http://dx.doi.org/10.1598/0872075028.2>
- Askeland, N. (2008). *Lærebøker og forståing av kommunikasjon: om forståing av begrepet kommunikasjon gjennom metaforar og metaforsignal i seks læreverv i norsk for ungdomstrinnet 1997–1999*. [Text books and communication conception: On the understanding of the concept communication through metaphors and metaphor signals in six text books in Norwegian for the secondary school 1997- 1999]. Oslo: Det humanistiske fakultet, Universitetet i Oslo.
- Baake, K. (2003). *Metaphor and Knowledge: The Challenges of Writing Science*. SUNY Press.
- Bakhtin, M.M. (1982). *The Dialogic Imagination: Four Essays*. (Edited by M. Holquist.) Austin: University of Texas Press.
- Bakhtin, M.M. (1986). *Speech Genres and Other Late Essays*. (Edited by M. Holquist & C. Emerson.) University of Texas Press.
- Bakhtin, M.M. (1993). *Toward a Philosophy of the Act*. (Translated by V. Liapunov.) University of Texas Press.
- Barton, D. (1994). *Literacy: An Introduction to the Ecology of Written Language*. Oxford: Blackwell.
- Barton, D. (2007). *Literacy: An Introduction to the Ecology of Written Language* (2nd ed.). Wiley-Blackwell.
- Baynham, M., & Prinsloo, M. (2009). *The Future of Literacy Studies*. Palgrave Macmillan. <http://dx.doi.org/10.1057/9780230245693>
- Fox, E., & Alexander, P.A. (2009). Text Comprehension: A Retrospective, Perspective, and Prospective. In S.E. Israel & G.G. Duffy (Eds.), *Handbook of Research on Reading Comprehension* (pp. 227–239). New York & London: Routledge.

- Gavelek, J., & Bresnahan, P. (2009). Ways of Meaning Making: Sociocultural Perspectives on Reading Comprehension. In S.E. Israel & G.G. Duffy (Eds.), *Handbook of Research on Reading Comprehension* (pp. 140–176). New York & London: Routledge.
- Gee, J.P. (2000). The New Literacy Studies. From Socially Situated to the Work of the Social. In D. Barton, M. Hamilton & R. Ivanič (Eds.), *Situated Literacies. Reading and Writing in Context*. London & New York: Routledge.
- Gibbs, R.W., & Barnden, J.A. (2008). *The Cambridge Handbook of Metaphor and Thought*. New York: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511816802>
- Gross, A.G. (1996). *The Rhetoric of Science*. Harvard University Press.
- Guthrie, J.T., & Wigfield, A. (2000). Engagement and Motivation in Reading. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson & R. Barr (Eds.), *Handbook of Reading Research* (vol. 3, pp. 403–422). Mahwah, New Jersey, & London: Lawrence Erlbaum Associates.
- Holquist, M. (1990). *Dialogism: Bakhtin and his World*. Routledge. <http://dx.doi.org/10.4324/9780203330340>
- Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. University of Chicago Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*. Basic Books.
- Lankshear, C. (1999). Literacy Studies in Education: Disciplined Developments in a Post-Disciplinary Age. In M. Peters (Ed.), *After the Disciplines. The Emergence of Cultural Studies*. Westport, Connecticut, & London: Greenwood Publishing Co.
- Lankshear, C., & Knobel, M. (2003). *New Literacies: Changing Knowledge and Classroom Learning*. Open University Press.
- Morson, G.S., & Emerson, C. (1990). *Mikhail Bakhtin: Creation of a Prosaics*. Stanford University Press.
- Neisser, U. (1982). *Memory Observed: Remembering in Natural Contexts*. W.H. Freeman.
- Pramling, N. (2006). *Minding Metaphors: Using Figurative Language in Learning to Represent*. Göteborg: Acta Universitatis Gothoburgensis.
- Pressley, M., & Wharton-McDonald, R. (2002). The Need for Increased Comprehension Instruction. *Reading Instruction that Works: The Case for Balanced Teaching* (pp. 236–288). New York: The Guilford Press.
- Scribner, S. (1984). Literacy in Three Metaphors. *American Journal of Education*, 93(1), 6–21. <http://dx.doi.org/10.1086/443783>
- Street, B. (2003). What's New in New Literacy Studies? *Current Issues in Comparative Education*, 5(2).
- Street, B. (1984). *Literacy in Theory and Practice*. Cambridge: Cambridge University Press.
- Vygotskii, L.S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.
- Vygotsky, L.S. (1986). *Thought and Language*. (Edited by A. Kozulin.) Cambridge, Mass.: MIT Press.
- Wertsch, J.V. (1991). *Voices of the Mind: A Sociocultural Approach to Mediated Action*. Cambridge, Mass.: Harvard University Press.