

Towards a theory of embodied literary experience

DENNIS J. SUMARA

University of Alberta

ABSTRACT: This article advances a theory of embodied literary engagement that aims to render more explicit the complex relationships between cultural experiences and biological structures. The argument presented draws on research literatures from neuroscience and evolutionary biology, which suggest that the human mind is somewhat ambiguously and widely distributed across a network of components, artifacts, processes, and relationships. These studies challenge commonsense beliefs about what constitutes the human mind and its development, which, in turn, call into question beliefs of how the human sense of self is created. Brought to studies of literary engagement, a theory of embodied learning suggests that acts of reading are social and cultural events that contribute to ongoing biological and evolutionary change. Although partially conditioned by a text, the act of developing understanding through reading must always be considered evidence of the complex way the reader, sense of mind, self, collectivity and intelligence are formed and represented. The article concludes with some specific recommendations about what a theory of embodied learning suggests for the teaching and researching of literary engagement.

KEYWORDS: Literary experience, embodiment, mind, self, learning.

INTRODUCTION

In this article, I offer an expanded understanding of what counts as literary - one that includes, but is not limited to, engagements with what are considered to be works of literature. Specifically, I describe a theory of embodied literary experience that might help teachers and researchers of language and literacy to better understand the structure of imaginative engagements and how these participate in the ongoing development of the human mind and sense of personal identity. These are ideas that I have been working on for a dozen years now and are difficult to summarize easily. Within the context of this article, I can only offer a quick outline of some of the thinking that supports conclusions I have made about the importance of literary experience. Before getting to that, however, I am going to offer background a framework for a reconceptualized theory of what counts as learning, through discussion of what is believed about the human mind and the human sense of self-identity.

I'd like to begin by asking you to think about where we might find the human mind. Commonsense tells us that it is in the brain. However, anyone who has had a computer failure while writing knows that the mind is not confined to the brain. Because writers know that lost writing can never be fully retrieved, such events are usually followed by a period of grieving. These experiences of loss provoke us to question philosophical traditions that have assumed that the mind and the body exist as separate entities. Contrary to what is commonly believed, knowledge is not hiding in the bushes waiting for some disembodied mind to discover it. Knowledge emerges from networks of relationships and is mediated by language and the tools of language, including writing.

Of course, this is not news to literacy researchers. Many writers have discussed the ways that reading is affected by the social and cultural contexts of reading, the reader's psychological state, the way texts are organized and presented, the reader's prior history of reading and so on. Most of the research in literary response, however, is not able to represent the complexity of reading since it tends to ignore biological and ecological influences. How many research articles discuss the health of the reader and its relationship to how meaning is constructed? How many talk about the relationship between meaning-making and geographical and climactic influences? How many discuss how the neural structure of the brain is affected by experiences of transcendence that are associated with deep engagements with literature? Not many.

This inattentiveness to the biological and the environmental is not confined to research in reading; it is widespread in social science research. In their book *Philosophy in the Flesh*, George Lakoff and Mark Johnson (1999) point out that cognitive and neuroscientific research have yielded three important findings that have been largely ignored by most contemporary philosophers and social science researchers. Firstly, the mind is inherently embodied. Secondly, thought is mostly unconscious. Thirdly, abstract concepts are largely metaphorical. These research findings suggest that what is prized as capital R "Reason" must be reconsidered. Reason is not some pure activity of a mind that is miraculously detached from the biological body. Mind arises from the complex ways biological bodies are immersed in social, cultural and environmental systems and conditions. From this perspective, thinking is influenced by what one reads and by what one eats. Thinking is influenced by one's relationships to other people and to air and water quality. Reason does not transcend experience, but emerges with it. Because human beings are only conscious of a tiny fragment of what is available to their senses, the processes that underlie what we come to call "Reason" are mainly non-conscious and inaccessible to perception (but are still influential to thinking) (Norretranders, 1998). Because human experience must be represented with language to be made available for interpretation, Reason is always metaphorical and imaginative.

These assertions about Reason call into question over two thousand years of Anglo-American philosophy and a great deal of theory that is structured by it, including theories of learning in the field of education. Most of these theories are organized by distinctions made between Rationalism and Empiricism. Rationalism is understood as knowledge that emerges from pure activities of the mind. Rational argumentation is not tainted or confused by the senses. Empiricism defines knowledge claims on the basis of interpretations of data collected through different processes of observation. Although these seem at odds with one another (Rationalism disregards the empirical world of the senses, while empiricism embraces it), both are structured by the belief that the mind and the body exist as distinct entities.

Research in cognitive science has troubled the assumption that the mind is confined to the brain (Calvin, 1996; Dowling, 1998; Varela, Thompson, & Rosch, 1991). Although the brain functions as the distributor and organizer of cognitive functioning, it cannot be considered the primary influence in the creation of the human mind. Equally important are other bodily subsystems and systems outside the body. The human mind is somewhat ambiguously and widely distributed across a network of components, artifacts, processes, and relationships. The mind, then, is not inside or outside the body. It is both: Inside/Out. Of course, what we believe about mind influences what we believe about the human sense of self and how it is created. As post-structural theorists have taught us, the sense of self emerges from a complex array of discursive practices, supported by various technologies of language, including

reading and writing (Kristeva, 1984; Foucault, 1988). As someone who has learned to write academic articles using electronic word processing, for example, my experience of self-identity is supported by my relationship to computers. I depend on information that is stored on my computer's hard drive. I use my computer as a tool to access web-based information and to connect me to other "minds" around the world. Importantly, the act of typing words into my computer also creates rituals and routines that help structure, support and orient my thinking processes. Since learning to compose on a computer, I can no longer use cursive writing to think. The "mind" that I have developed using computer assisted communication technologies is not the same mind that I had developed in my youth using pen and paper communication technologies. This evolution of mind took a few years, and it changed more than my technical abilities. It changed the way I think and the way I learn to think and the ways I represent my thinking, which, in turn, has altered the way I think of myself.

This is a formulation that is supported by neuroscientific research (Deacon, 1997; Johnson, 1997). Using an electronic word processor to organize my thinking has required the creation of new neural pathways that have altered my brain's biological structure. Also, because I now spend long periods of time in front of a computer, the use of this technology has altered other aspects of my physiology, including the musculature in my hands and arms and my posture (and yes, sadly, my waistline).

There are, of course, other discursive practices that influence my sense of self. Over the years, who I imagine myself to be has been influenced by my identifications with fictional characters and situations. As I explore at length in my first book, *Private Readings in Public* (Sumara, 1996), for many readers, relationships with literary texts are important ongoing methods for the integration and symbolization of their senses of remembered, presently experienced and imagined identities. Understood in this way, the reading of literary fiction is not only a practice that is informative or aesthetically pleasurable, it is one that becomes necessary for those who have chosen to embrace it as an interpretive practice. I knew that my mother was dying, for example, when one day at the hospital she told me that she no longer found reading interesting. Like me, she was a person who depended on literary experiences as a structure that helped her to continue to organize and interpret her place in the social and cultural world. When she said she no longer found reading interesting, I knew that what she was really saying was that she was no longer able to maintain or develop any sort of relationship with the world.

Although not all human beings develop relationships with what we commonly identify as literary texts, it is the case that they are all influenced by the more-than-human world. As eloquently described by David Abram (1996) in his book *The Spell of the Sensuous*, the landscape and climate of one's living circumstances are very influential on one's thinking and on the ongoing development of one's sense of self identity. This certainly has been my experience. Over the past 15 years I have conducted academic work in different urban and rural locations in Canada. With each move I find that the particularities of my experience change: I eat differently, exercise differently, socialize differently, and read and write differently. As I reread articles that were written in different locations I notice profound differences in topic and in writing style.

Even though what I am describing is not unique, it has been interesting for me to notice how under-theorized and under-researched these experiences have been. In part, my own questions about the biological and geographical place of reading prompted me to collaborate with Brent Davis and Rebecca Luce-Kapler on a book entitled *Engaging Minds: Learning*

and Teaching in a Complex World (2000) in which we explain how recent discussions of cognition have examined learning at a range of levels, from bodily subsystems to planetary dynamics. These discourses tend to share a number of assumptions, all of which might be linked to a metaphoric commitment to a “body” as a focus of inquiry. These bodies include: the planetary body, the body politic, social bodies, bodies of knowledge, the body biologic, and bodily subsystems such as organs and cells. Such bodies are seen as complex collectives whose boundaries are never tidy or fixed. Although each is seen as having its own proper integrity or identity, there are no breaks between or among the levels of these perceived bodies. This suggests that popularly held dichotomies such as mind/body, self/other, individual/collective and human/natural are replaced with the assertion that such phenomena are enfolded in and unfold from one another.

Most important about this theory of learning is that it suggests that not all learning requires a central processing device or a “brain” in order to work. HIV and AIDS research has shown, for example, that the immune system has the capacity to continue to change its own structure in order to adapt to new challenges. The immune system does not merely respond using a fixed structure. It is in a reciprocal co-emergent relationship with other subsystems of the human body. It learns. Of course, what scientists have learned about bodily subsystems, teachers have always known about classrooms of learners. Anyone who has spent time working with groups of learners in classroom settings knows, for example, that there are products of the collective that cannot be directly attributed to particular individuals in the group but, at the same time, that are dependent upon the individuals in the group. This “collective knowing” has been observed by researchers in all areas of study, including at the cultural level. Who controls fashion trends? The economy? The Internet? Although spheres of influence can be identified, it is largely the case that each of these function as learning systems, which generate products that are often surprising.

A theory of embodied learning acknowledges that all “knowing subjects” come to know through perceptually guided action. However, knowing is not limited to what is available to perception that is noticed, but is also influenced by the vast amount of information that is perceived by the biological body, but is never brought to the level of consciousness. From this perspective, the effective learner does not only make decisions that are based on verifiable empirical data that are available to the senses. She or he makes decisions that also take into account what we might call intuitions, hunches, gut feelings. While all of us rely on this kind of knowledge, because it is not considered “scientific” it is often not taken seriously. A theory of embodied learning pays attention to this kind of knowing because it suggests a more expansive view of what counts as learning.

From this perspective, learning is not so much about being able to represent “objects” of knowledge. Instead, learning is more directed toward abilities to perceive relationships, to interpret connections between different biological, social, political, cultural bodies, and to recognize usable insights as they are created. This understanding of learning changes our view of what counts as intelligent action. No longer can intelligence be seen as the ability to remember and represent, on cue, already known facts and ideas. Instead, intelligence is understood as the learned ability to interpret useful relations between and among what is remembered, what is currently perceived, and what is imagined (Deacon, 1997; Richardson, 1999). As well, intelligence supports the ability to accommodate to the particularity of a situation, and the ability to access diverse information and skills to meet new and unfamiliar challenges.

As all educators know, developing these abilities depends upon learned interpretation practices. As explored by a number of writers, reading is one such practice that has been invented by human beings and incorporated into their evolutionary processes. Recent research has described how language activities such as reading are not encoded into an already fixed neural structure in the brain but, rather, contribute significantly to the way in which the neural networks are developed (Calvin, 1996; Dowling, 1998; Pinker, 1997). Acts of reading then, are not only social and cultural events; they contribute to ongoing biological and evolutionary change.

When reading is understood in this way, the products of reading become interesting sites for research. As I develop in my latest book, *Why Reading Literature in School Still Matters* (Sumara, 2002), the reader's response to a text becomes an important and interesting cultural artifact. Although partially conditioned by a text, the act of developing understanding through reading must always be considered evidence of the complex way the reader's sense of mind, self, collectivity and intelligence are formed and represented. As Wolfgang Iser (1993, 2000) has shown, the act of reading literary fiction is an interesting kind of literary anthropology. Like artifacts excavated from an archaeological dig, the response to reading is sedimented with the various influences that led to its creation. In a sense, although absolutely particular to a specific act of reading, the response is also a window into a much wider set of relationships.

That is why I find it interesting to look at the physical traces of reading that I, my students, and those with whom I conduct research leave in texts, particularly when one text offers markings from several readings. As I review the many underlinings, margin notes, and more extensive jottings at the back of novels that I re-read, I notice not only how each reading provoked different associations, responses and conclusions, but, as well, how my own sense of personal identity has evolved over time. In interpreting the relationship between my marked responses and the continued identifications I have with characters in the novel, I am able to begin to represent the complexity of my reader/text/context relationships. It is not so much the response that I had to any particular reading of the novel that is interesting to me as the spaces between and among these responses that become most telling and that require the most interpretation.

Of course, this is hardly a new insight. Many writers, including Paulo Freire (1970) and Louise Rosenblatt (1978) have helped us to understand that reading is not only decoding and interpreting printed texts — reading is the act of continually noticing and interpreting links between and among different “bodies” that comprise our physical, psychic and ecological experience of the world. As Humberto Maturana and Francisco Varela (1987) suggest in their book *The Tree of Knowledge*, all species develop some way to form links between and among one another in order to form societies. Ants, for example, communicate through exchanges of chemical secretions that continually function to organize individual and social bodies. Human beings, it seems, have developed language for the same purposes and various technologies that support literacy practices. Unlike my dog, Dylan, who uses strategic peeing to mark his presence in the world, I use reading and writing practices to create fluid boundaries (pardon the pun) between my evolving sense of personal identity and the social and cultural world.

I want to conclude by finally getting to the question: What is literary experience (and why should we care about it)? In the early 1990s while working on my Ph.D. dissertation, I spent a year trying to define “literature.” It was an impossible task, since although it is easy to

identify what has previously counted as “literature” and “not literature”, it is not so easy to develop a definition that includes what might count in the future. Like all ideas, the idea “literature” continues to evolve along with societies and cultures. More interesting to me became the question, What counts as “literary”, since this prompts a phenomenological inquiry into human experience, with an emphasis on trying to discern differences among a variety of experiences. Following arguments made by Umberto Eco (1994) in his book *Six Walks in the Fictional Woods*, I prefer to think about what the reader chooses to believe when engaging with a text. Eco suggests that the significant difference between a non-literary experience and a literary experience is that in the former, the reader believes that what he or she is reading is true. When I read a newspaper article written by a journalist reporting on an actual event, I believe that what I am reading is a representation of the truth. In a literary experience, Eco argues, the reader “pretends to believe” that what the author has created is true (and it doesn’t really matter if it is or if it is not). These experiences are usually thought to occur with those works we have already identified as literature. However, this definition of literary helps me to notice many other instances of “pretending to believe” that are at least as influential as those that I have with more traditional forms of literary texts.

The relationships that I develop with characters on television sitcoms or dramas constitute another form of literary fiction since, again, in order for me to become engaged in these characters’ lives, I need to pretend to believe that they are “true” and, at the same time, understand that that I have no real commitment to them or them to me. I will never be able to meet those characters in the flesh, since they only exist in the actors’ and in my imaginations. This is contrary to the relationships that I develop with persons who appear in “reality TV” series, where, although I know that I am watching a highly contrived situation unfold, I believe that these persons exist in real life and that if I met them they would be nearly the same as they appear on television.

In my work, I have found that literary experiences that include identifications with characters create, not only parallel worlds for readers but, importantly, parallel worlds that can be continually revisited. One crucial difference between fixed text literary experiences and other experiences is that the former create conditions for a personal and cultural commonplace for interpretation and re-interpretation. Each time a printed text is re-visited by a reader or by groups of readers, a distinction is made not only between the personal experience of the reader and the perceived world of the text but, as well, a distinction is made between other readers who read the same text and between prior experiences with the same text. These textual interpretation practices are not unlike other cultural rituals that are repeated, but never repetitious. Like annual celebrations such as birthdays and anniversaries, these literary experiences create an important critical commonplace for the ongoing mapping and measuring of the development of one’s identity.

Of course, I realise that I am the product of a generation of human beings that did not develop a sense of mind and identity using computer based communication technologies and representation strategies. What counts as literary experience for me is limited by my own experience and the ways in which that experience has been supported by both biological and phenomenological structures. New generations of human beings have had their minds and identities differently organized by communication and representation strategies that were not available until recently. Recently, I read an article in the *Globe and Mail* (Canada’s national newspaper) that described “blogging” – a term that has been coined to describe the processes of writing diaries on the Internet, where the blogger links to other web pages that she or he finds interesting (Wiwa, June 7, 2003). As I read about blogs, bloggers, and blogging I

realised that these represented what I would consider to be conversations and, of course, conversations are perfect examples of how individuals come together to create knowledge. As I continued to read about “blogging” I also realised that, unlike face-to-face conversation, blogging facilitates conversation without the usual commitments of in-person conversation. Because biological bodies are not obviously present, the bloggers create identities that to readers are largely ones that they must imagine to be true. Here, I thought, is a category of experience that is somewhere in between the two categories that Eco has developed. I went on-line and read some of these blog-sites and realised that, for me, they represented a hybrid form – something in between the novel and the memoir, between the autobiographical and the fictional. In commenting on the difference between the two, Ken Wiwa, the journalist who wrote the piece, asked “Where do you draw the line when the authorities cannot be trusted and when you don’t have a clue about the bona fides of your sources? Does it matter?”

Well, I think it probably does matter, particularly since we humans continue to want to know where the line is drawn between which identifications we must be accountable to and which ones exist in a more playful, imaginary discursive space. Although imagined identifications are proliferating through uses of new technologies, this does not mean human beings do not need to learn critical interpretive skills. I’d say we need them more than ever.

My challenge to both researchers and teachers of the English language arts is to make discernments between what it means to engage with and teach literature and what it means to have and teach literary experience. While many of us are accomplished at helping our students learn about literature, we have not been so accomplished at helping them become expert at literary experience. In fact, we assume this to be the backdrop of our literature teaching pedagogies. I am suggesting that we become more knowledgeable ourselves about the phenomenology and the biology of literary experience. This means not only studying what happens when readers engage with texts that we already identify as literature, but also studying what happens to learners’ minds and identities when they are involved in experiences that have literary qualities. In order to do this, we must learn to include the study of the biological body in our study of literariness.

I recently read a book entitled *Why God Won’t Go Away: Brain Science and the Biology of Belief* (Newberg and D’Aquili, 2001) which summarized neuroscientific research into experiences of spiritual transcendence. The authors do not argue for the presence of God but, instead, they use the results of research to show how the brain and the body are affected by experiences of transcendence. What might we learn if we formed alliances with members of the neuroscientific community to find out how literary experience influences the development of the brain and the overall functioning of the human body?

As I see it, as literacy researchers and teachers we have three challenges, Firstly, we must become more precise about defining the differences between literary and non-literary experiences. This does not mean being more precise about defining literary objects; it means being clearer about what count as experiences that condition imaginative possibilities for human learning. Secondly, we must become much more interested in learning how new technologies support what are considered to be literary experiences and how we might help our students develop a deeper understanding of how these interrupt beliefs about what is normal, what is true and what is right. Finally, we ought to become more interested in what is happening in the fields of cognitive science and evolutionary biology. In forming alliances with these colleagues, we will be able to learn how experiences of imaginative engagement

become influential on the ways in which the human cognitive system is created. In so doing, we will be able to generate a much more complex understanding of the literary, one which is attentive to the fact that all human experiences emerge from webs of human, sub-human and more-than-human relations.

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