



COGNITIVE STUDIES IN LITERATURE AND PERFORMANCE

Restoring the Human Context to Literary and Performance Studies

Voices in Everything

Howard Mancing · Jennifer Marston Williams

as a tool in our complex social relationships. Our aim in this book is to describe this idea's relevance for literary and performance studies. This stands in opposition to the view implicit in some contemporary humanistic and social theories, that we are socially constructed (and thus, reified) subjects, born with a blank-slate mind and shaped into being by social forces such as language, ideology, power/knowledge relationships. This introductory chapter will lay out the problems—linguistic, psychological, sociological—presented by some forms of literary theory; outline our proposal for an alternative approach to understanding and appreciating literature and performance; and define the human contexts of literary and performance studies as examined throughout this book.

With context, a number of interrelated concepts recur throughout this book. A few of the most notable are *wholeness* (the whole is greater than the sum of the parts), *simultaneity* (multiple factors are at work at the same time, so they cannot be reduced to a single underlying principle), and *agency* (human beings act with intentions and choices, rather than as either biological automatons or social constructs). In the case of an alternate approach to literary and performance studies, we have undertaken certain specific tasks in the chapters that follow. Foremost among them is the work of dozens of linguists, biologists, psychologists, and others using two methods: summary and analysis. We have included some longer quotations in the text in an attempt to offer the reader a chance to hear voices that are generally not heard in theory. The subtitle of this book, *Voices in Everything*, is a nod to the work of

one of the most important figures of the twentieth century. Bakhtin's statement about the importance of context in the last essay he wrote suggests the importance of those whom we want to introduce to literary scholars and students themselves: "I hear voices in everything and dialogic relations between them" (1986, 169). Bakhtin is a central figure in this book, and he inspired its subtitle. Voices indicate embodied cognition in human context. By allowing a good sample of the major voices and scientists in a wide variety of fields to have a direct, largely unmediated voice in the chapters that follow, we hope to approximate in the pages of this book something like a Bakhtinian dialogue. Rather than filter the unique and often idiosyncratic voices of many others through our own, more monologic discourse, we let them speak for themselves.

Because contemporary linguistics, biology, and psychology are such large and complex fields, this book offers a good starting point as a primer about the most important principles of embodied cognition, so that literature and performance can be studied, interpreted, and discussed in accordance with contemporary scientific understanding. As humanistic scholarship writing about evolution, the structure and function of the mind-brain, child development, artificial intelligence and robotics, and other similar subjects, we aim to present this material from the point of view of students and teachers of literature, performance, and film. Too often good writing about the structure of the brain or human evolution sounds alien to the ears of many humanistic scholars, technical or decontextualized. We hope these voices are then relevant or, at best, tangential to literary students and scholars. By making frequent comparisons with related concepts in other fields, we hope to make these voices more

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Cognitive Studies in Literature and Performance

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*We dedicate this book to our children:
to Catherine and Christina (Howard), and to Aidan and Kai (Jen),
whose voices are in everything we do.*

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CONTENTS

1	Introduction: The Human Contexts of Literary and Performance Studies	1
1	<i>Outlining the Problem: Contemporary Literary Studies' Incompatibility with Modern Science</i>	2
2	<i>An Alternative: Reconciling Literature and Science Through Context</i>	5
3	<i>Methodology, Terminology, and Underlying Inspirations</i>	8
4	<i>A Roadmap to Contextualism: Book Layout and Chapter Summaries</i>	10
	<i>References</i>	17
Part I	Linguistics and the Legacy of Bakhtin's Philosophy of Language	
2	Saussurean Linguistics and Bakhtin's Critique	21
1	<i>General Linguistics</i>	21
2	<i>Critique</i>	25
3	<i>An Early Critic: Bakhtin</i>	28
	<i>References</i>	30
3	On THEORY, Rewriting Saussure, and Chomsky	33
1	<i>THEORY</i>	34
2	<i>Rewriting Saussure</i>	43
3	<i>Generative Linguistics</i>	45

4	<i>Chomsky Between COGNITIVISM and CONTEXTUALISM</i>	54
5	<i>Chomskyan Literary Theory</i>	57
	<i>References</i>	58
4	Bakhtin and His Echoes	63
1	<i>The Bakhtin Circle</i>	64
2	<i>Metalinguistics</i>	66
3	<i>Dialogism</i>	70
4	<i>Cognitive Linguistics, Integrational Linguistics, and Pragmatics</i>	77
5	<i>Using Language</i>	85
	<i>References</i>	88
 Part II Biology, Language, and the Brain		
5	Evolution and Language	93
1	<i>Neo-Darwinism</i>	94
2	<i>Sexual Selection and the Role of Women in Evolution</i>	100
3	<i>Human Evolution</i>	107
4	<i>The Origins of Language</i>	112
5	<i>Coevolution of Language and Brain</i>	119
	<i>References</i>	123
6	The Brain	129
1	<i>Evolution of the Brain</i>	130
2	<i>Structure of the Brain</i>	134
3	<i>The Emotional Brain</i>	138
4	<i>The Sexual Brain</i>	143
	<i>References</i>	147
7	Development of the Brain	151
1	<i>The Brain in Infancy</i>	152
2	<i>The Brain in Childhood and at Puberty</i>	154
3	<i>Reading and the Frontal Lobes</i>	156
4	<i>The Mature Brain</i>	159
5	<i>Neurolinguistics</i>	160
	<i>References</i>	163

Part III Psychology and the Development of the “Literary Mind”

8	The Mind at Work	167
	1 <i>Consciousness and Self</i>	167
	2 <i>Perception</i>	173
	3 <i>Sleep, Dreams, and the Unconscious</i>	177
	4 <i>Memory</i>	185
	5 <i>Schema Theory and Categorization</i>	194
	6 <i>Narrative and the Literary Mind</i>	199
	<i>References</i>	210
9	Development of the Mind	221
	1 <i>The Blank Slate Myth</i>	221
	2 <i>Infant Cognition</i>	223
	3 <i>The Emergence of Language</i>	228
	<i>References</i>	232
10	Theory of Mind (ToM)	235
	1 <i>Primatology, Children and Adults, Folk Psychology</i>	236
	2 <i>ToM and Autism</i>	242
	3 <i>Evolutionary History and Theories of ToM</i>	244
	4 <i>ToM's Roles in Language and Literature</i>	249
	<i>References</i>	253
 Part IV Context in Science and the Humanities		
11	COGNITIVISM	261
	1 <i>Cognitive Science</i>	262
	2 <i>Artificial Intelligence (AI)</i>	264
	3 <i>Intelligence</i>	270
	4 <i>Robots</i>	273
	5 <i>Connectionism</i>	277
	<i>References</i>	279
12	CONTEXTUALISM	281
	1 <i>The Contextual Metaphor</i>	282
	2 <i>Evolution and Biology in Context</i>	284
	3 <i>Psychology and Philosophy in Context</i>	294
	<i>References</i>	304

13	Evolutionary Psychology	307
	1 <i>The Evolved Mind</i>	308
	2 <i>Sociobiology</i>	314
	3 <i>Debates</i>	315
	<i>References</i>	319
Part V	Contextualism—Changing the Paradigm in Literary and Performance Studies for the Twenty-First Century	
14	Cognitive Literary Studies	325
	1 <i>Pioneers and Overviews</i>	326
	2 <i>Evolutionary Approaches</i>	329
	3 <i>Cognitive Poetics</i>	332
	4 <i>Reader-Response and Narrative Theory</i>	335
	5 <i>Other Cognitive Approaches</i>	340
	6 <i>Empirical Studies</i>	350
	<i>References</i>	354
15	Cognitive Approaches to Performance Studies	361
	1 <i>Theater</i>	362
	2 <i>Film and Other Media</i>	364
	3 <i>Dance and Movement Studies</i>	367
	<i>References</i>	371
16	Conclusion: The Bridging Function of Contextualism and the Cognitive Paradigm	375
	1 <i>A New Direction: Which Path(s) to Take?</i>	375
	2 <i>Literary and Performance Studies in Context</i>	380
	3 <i>Bakhtin for the Twenty-First Century</i>	383
	4 <i>Assessment and Final Remarks</i>	384
	<i>References</i>	390
	Index	393

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CHAPTER 1

Introduction: The Human Contexts of Literary and Performance Studies

Context is the key.

—Robert Frenay

Context is, of course, the key.

—David Lodge

We are evolved animals, with an imaginative mind-brain that enables us to be unique, individual, and contextualized agents who use language as a tool in our complex social relationships. Our aim in this book is to describe this idea's relevance for literary and performance studies. This stands in opposition to the view still implicit in some contemporary humanistic and social science theories, that we are socially constructed (and thus debiologized) subjects, born with a blank slate mind and brought into being by social forces such as language, ideology, and power/knowledge relationships. This introductory chapter will lay out the problems—linguistic, psychological, and biological—presented by some forms of literary theory; sketch out our proposal for an alternative approach to understanding and appreciating literature and performance; and outline the human contexts of literary and performance studies as examined throughout this book.

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I OUTLINING THE PROBLEM: CONTEMPORARY LITERARY STUDIES' INCOMPATIBILITY WITH MODERN SCIENCE

Works of literature consist of only one thing: language. Therefore, all literary theory must be based, explicitly or implicitly, on a theory—or at least some concept—of language. The varieties of language theory that have dominated literary studies during the final decades of the twentieth century and into the twenty-first century so far have been firmly grounded in, and depend vitally upon, the linguistic program sketched out a century ago by Ferdinand de Saussure. Yet linguistics as a discipline has itself virtually abandoned the Saussurean paradigm. Thus, the curious situation has emerged in which some literary scholars still assume a concept of language which linguists no longer find useful. One of our main goals in this book is to trace the rift between linguistics and literary theory and to suggest reconciliation.

This seemingly modest project requires an excavation into the ways fundamentally inaccurate ideas about humans and language have become entrenched in literary studies. All literary theory rests, whether explicitly or implicitly, on a psychological theory. It is impossible to talk or write of authors, readers, characters, and/or narrators without having some idea about what constitute these entities. And since these entities are always human beings (or anthropomorphized biological organisms or machines), it is impossible to teach literature, write criticism of specific literary works, or engage in theorizing about literature, without understanding what a human being is, what the mind and psyche consist of, and what the nature of cognitive processes might be. Since language is arguably the single most distinctive feature of the human species, language and psychology cannot be considered separately. Therefore, any attempt to trace the rift between linguistic theory and literary theory also necessarily implies tracing relationships between psychology and language. The psychology informing current literary theory turns out to be just as divergent from contemporary psychological theory as the linguistic theory informing current literary theory is from contemporary linguistic theory.

Any psychological theory rests on some stance with respect to biology. What is the relationship between mind and body, nature and nurture, genes and culture? What is the role of evolution in human cognition? Much literary theory ignores not only the latest advances in genetics and neuroscience, but also the solid foundation of evolution that has

supported all biological study since the middle of the nineteenth century. The biological assumptions that underlie today's theory are not shared by the majority of biologists any more than are the linguistic and psychological theories of theory widely accepted by linguists and psychologists. Literary theory as such does not need to disappear, but we assert that it needs some serious reconsideration and reconceptualization. While most disciplines reject Cartesian dualism today, prevailing theories in the humanities often posit a socially constructed subject about whom nothing biological is of significance. The general assumption in many theories about literature in particular as well as about social/cultural contexts in general in recent decades is that nature (genes, biology, innateness, the material body in any significant way) is not a factor in human subjectivity, while nurture (culture, social or environmental forces, ideology, and, above all, language) is what exclusively determines the human subject.

The linguistic, psychological, and biological assumptions that have dominated literary theory and cultural studies since the ascendance of poststructuralism—that is, since about the 1970s, with its origins in France in the decade before—have been, for the most part, shared by scholars throughout the humanities and many of the social sciences. How did it happen that literary studies in the United States became dominated by linguistic and psychological theories that are so out of date? And how can literary studies continue to be dominated by such, even when the term “poststructuralism” may no longer be in vogue, as it is said we are living in something like a post-poststructuralist era?¹ This book will explore some possible answer to these puzzling questions, but more pressingly will propose alternatives to being stuck in an outdated mode of literary analysis.

Today, the study of linguistics is dominated not by Saussure and his followers but by Chomsky and those who have come in his wake. The dominant paradigm in psychology is not behaviorist but cognitive. And modern biology is firmly based on the theory of evolution by natural selection as outlined by Charles Darwin in the mid-nineteenth century and rounded out by twentieth-century genetics and subsequent developments. As for neuroscience and our understanding of the human mind-brain, humans have learned more in the last few decades than we did in all of previous history.

In recent decades, there has been a rising tide of criticism within literary studies against the reigning brand(s) of theory based on the linguistics of Saussure and best exemplified in the work of Derrida,

Foucault, Lacan, and Althusser. The feeling that “Theory is dead” echoes through the lecture halls and in the pages of professional journals, and yet seldom is anything proposed to take its place. While those who label themselves “postmodernists” or “deconstructionists” are increasingly rare, the literary scholarship that is practiced is often still very much in line with these ways of thinking.² Brian Boyd asked fifteen years ago, “Are reports of the death of Theory exaggerated? Or is Theory dead in a special way, one of the Undead, a zombie or a vampire?” (2006, 290). Theory is most definitely *not* dead, but continues to underlie much literary criticism published in scholarly journals today, while approaches to literature that are more empirical in nature are often dismissed.

In critiquing literary and cultural theory, we have in mind the specific brand of theory that rests on premises that contradict modern psychology and biology and that resists (usually unknowingly) what science now understands about embodied cognition. A main goal of this book is to make the most important principles of these fields known to humanities scholars so that they can incorporate them as appropriate into their work and think critically about theoretical and other work that doesn’t account for them. In the context of the 2020s in which we write, we maintain that critical race theory, feminist theory, critical disability theory, affect theory, and others are crucial in the fight against unconscious bias and prejudice, if they don’t undermine themselves by ignoring scientific developments. Cognitive studies are perfectly compatible with these humanistic approaches. Throughout this book and in other works, we cite, endorse, and rely on numerous theorists and philosophers who are not directly involved with cognition studies. Some of them expand on or clarify traditional types of theory (what we’ll be calling *THEORY* to distinguish it from sound theoretical work that aligns with modern science), updating them for the twenty-first century by closely considering the embodied human mind and its dialogic exchange with culture and society.³

Theory has become the unmentioned but still dominant set of concepts that form the background of much of what is written about literature in the first decades of the twenty-first century. Theory is a classic case of what historian Daniel Lord Smail calls “ghost theories,” which he defines as “old ideas that continue to structure our thinking without our being fully aware of their controlling presence” (2008, 3). The following chapters draw attention to this implicit lingering theory in literary studies, while contrasting it with alternate ways of thinking in modern scientific writing and in scholarship that takes various empirical and cognitive approaches to the humanities.

2 AN ALTERNATIVE: RECONCILING LITERATURE AND SCIENCE THROUGH CONTEXT

Context is the single most important and unifying concept in this book. Whether in evolution, brain science, biology, psychology, philosophy, or linguistics, the thinkers whom we take as positive models from these and other fields call specific attention to the role of context in all thought and action. It is significant that the two intellectual trends of which we are most critical—the structuralist-semiotic-poststructuralist mainstream of literary theory and the mind-as-computer approach to artificial intelligence—are both characterized by decontextualization. In contrast, no one in the twentieth century placed more emphasis on context in language, aesthetics, and philosophy than Mikhail M. Bakhtin. In this, as well as in his better-known concept of dialogism, Bakhtin is exemplary and provides a framework for our considerations here.⁴ We return to Bakhtin throughout the work to show how cognitive linguists, language philosophers, and others carried further the foundations that Bakhtin had laid for considering utterances in context.

The human context necessarily involves biological, psychological, and social (cultural, historical, ideological, linguistic, and individual) factors. We call particular attention to the biological aspect, not because it is more important, but because it is the element most often overlooked or even denied in the discourse of theory, where social forces are considered to be all-powerful. In the twenty-first century, no serious scholar can afford to disregard or deny biology, including evolutionary theory. But this does not mean that biology trumps culture. Quite the contrary, everything is both biological and social at the same time. Daniel G. Freedman (1979) put it aptly: “Our species is biocultural—100% biological and 100% cultural” (108). Dualisms such as the classic Cartesian mind–body split or the nature-nurture debate become incoherent ideas that cannot be meaningfully addressed within contextualized—and contextualizing—discourse.

Science reveals that we need to conceive of things in terms of continua, interrelationships, mutually defining processes, and complex interactive systems, rather than in simplistic binaries and dualisms. What we are, what happens in the world, and how we understand and act upon what is said and done can never be described as simple biological necessity or equally simple (and simplistic) social construction. Thus, *binary thought* and *determinism* are among the major targets of our ongoing

critique. Fruitful explanations do not emerge out of an insistence upon describing the world in either-or terms or a reliance upon some version of Cartesian (or any other) dualism. The monocausal assumptions of determinism, whether biological (that our genes determine us) or social (that language or ideology determines us) similarly oversimplify, offering little explanation beyond chilling implications of manipulation. The concerns expressed by feminist psychologist and ethicist Carol Gilligan nearly three decades ago in 1982 are still relevant today:

I find the question of whether gender differences are biologically determined or socially constructed to be deeply disturbing. This way of posing the question implies that people, women and men alike, are either genetically determined or a product of socialization—that there is no voice—and without voice, there is no possibility for resistance, for creativity, or for a change whose wellsprings are psychological. (1993, xix)

More recently, sexual neuroscientist Debra W. Soh (2017) has argued that some feminists—namely transgender feminists and gender feminists, which she distinguishes from “traditional equity feminists”—are ignoring contemporary scientific developments and thereby undermining their arguments. The gender feminists, as Soh observes, embrace the blank slate theory and disregard proven inherent sex differences in the brain in favor of social constructivism, while at the other extreme, transgender feminists tend to see sex differences as inherently biological and assert that gender identity is stable from an early age. Neurological science does not support these views but rather points to something more in between the poles of all-nature and all-nurture when it comes to gender identity development. We agree with Soh’s viewpoint in her article’s concluding statements:

Both the gender feminist and transgender movements are operating with good intentions: the desire to obtain the dignity women and transgender people rightly deserve. But it’s never a good idea to dismiss scientific nuances in the name of a compelling argument or an honourable cause. We must allow science to speak for itself.

Arguments advancing diversity, equity, and inclusion should and must continue to be made loudly, particularly in the current era of social conservatism, and humanists will play a vital role in doing exactly this. These arguments need not, and should not, fly in the face of science. Working together with like-minded scientists, humanists can reframe the current

arguments so that they are scientifically sound and thus advance social justice more credibly and effectively.

Not only humanists have neglected to consider the ways in which biological sex differences matter. 2017 saw the publication of a special issue of the *Journal of Neuroscience Research* on the topic titled “An Issue Whose Time Has Come: Sex/Gender Influences on Nervous System Function.”⁵ Eric M. Prager, the journal’s Editor-in-Chief, opens his editor’s column in the issue with this statement:

Neuroscience today relies on the overwhelming belief that biological sex does not matter and can be safely ignored in preclinical research. Common practice within neuroscientific research is that findings in one sex (usually males) can be generalized to the other sex (usually females). Authors will even take the extreme approach of developing questionable methods to “prove” that sex differences are not present in the brain.

The journal, following the National Institutes of Health’s mandate to include biological sex as a variable in studies, has developed a policy requiring its authors to do this as well, stating unequivocally that “sex fundamentally influences the brain” (Prager). The point is not to try to prove inherent superiority or inferiority of either the female or the male brain, but to ensure that studies are as beneficial as possible to all sexes. A neuroscientific study that bases its results on male brains and extrapolates those results to everyone may not be telling the whole story, thereby disadvantaging women greatly—or in extreme cases may even endanger them when it comes to health care. Advances in neuroimaging provide evidence supporting differing male and female brain structures, while at the same time affirming “the interaction of neurobiological sex and sociocultural gender is beyond simplicity” (Pavlova 237). Neurological conditions like autism seem linked to biological sex rather than gender, with males more frequently considered to be on the autism spectrum than females, but new research points to social and behavioral differences that result in girls more often being able to “mask” their autism.⁶ Does that tendency have its basis primarily in the biological sex, or are the behaviors also socially influenced? Pavlova also cites work on “gender-specific susceptibility to negative information” (237) that point to differences in coping between women and men that seem to be influenced by culturally determined and reinforced gender conceptions.⁷ But when it comes to gender-stereotyping research, which studies the effects of positive and

negative gender stereotype messages on task performance, the “[b]rain mechanisms underlying gender stereotyping appear to be sex specific” (ibid.). Most importantly: “Sex-related differences in the brain do not always parallel behavior” (237). A recent large study suggested higher rates of autism, self-reported autistic traits, and other neurodevelopmental conditions in transgender and gender-diverse people than in cisgender individuals (Warrier et al., 2020), pointing to the need for enhanced support systems for these groups, while raising many questions about the roles played by both biological and social factors.

This kind of complexity that does not lend itself to an either-or position regarding nature and nurture is likewise emphasized by biopsychologist Nigel Barber in a 2016 article regarding the blank slate controversy. He points out that some personality traits are present at birth and remain across a person’s development, and also that certain prenatal factors such as nutrition have been proven to have a significant effect on intelligence. At the same time, Barber notes that “the brain itself has blank-slate-like properties,” concluding, “The brain may not be entirely blank at birth but it is not entirely programmed either. It is an interesting mix of script and improvisation” (Barber).

Where does all this leave humanists and social scientists, when even the neuroscientists still don’t have the answers to the nature vs. nurture debate? This is precisely where the so-called softer science fields can contribute to a knowledge base in a way that complements “hard-scientific” advancements. Our intensive study of human cultural artifacts, careful considerations of literary production and reception, and deep understanding of subjectivity in relation to aesthetics comes ultimately *not* from abstract theorization but from observation of our students and ourselves as we read and discuss texts and their contexts—it is no exaggeration that these and other areas of humanistic expertise can help scientists continue to piece together exactly how the brain works and develops. But this level of contribution to the wider world of knowledge is only possible if we keep up with current science and ensure that our scholarship is consilient with rather than contradictory to it.

3 METHODOLOGY, TERMINOLOGY, AND UNDERLYING INSPIRATIONS

Along with context, a number of interrelated concepts recur frequently throughout this book. A few of the most notable are *emergence* (the whole is greater than the sum of the parts), *complexity* (multiple factors

are at work at the same time, so that we cannot reduce anything to a single underlying cause), and *agency* (human beings act with intentions and are neither biological automatons nor social constructs). In making the case for an alternate approach to literary and performance studies, we have undertaken certain specific strategies in the chapters that follow. Foremost among them is to present the work of dozens of linguists, biologists, psychologists, and others using two methods: summary and quotation. We have included some longer citations in the deliberate attempt to offer the reader a chance to hear voices that have generally not been heard in theory. The subtitle of this book is, after all, *Voices in Everything*, and to provide a comprehensive context, we want many voices, not only our own, to shine through.

Because contemporary linguistics, biology, and psychology are such large and complex fields, this book offers a good starting point as a primer about the most important principles of embodied cognition, so that literature and performance can be studied, interpreted, and discussed in accordance with contemporary scientific understanding. As humanistic scholars writing about evolution, the structure and function of the mind-brain, child development, artificial intelligence and robotics, and other similar subjects, we aim to present this material from the point of view of students and teachers of literature, performance, and film. Too often good writing on, say, the structure of the brain or human evolution by professionals in those fields sounds alien to the ears of many humanists. A technical or decontextualized aspect often makes them seem irrelevant or, at best, tangential to literary students and scholars. By making frequent comparisons with related concerns in literary theory and criticism, we attempt to make these chapters more relevant to the concerns of our colleagues and students in the humanities. Furthermore, since our primary concerns are literature and performance, we emphasize language: its role and relevant theories about its nature and functions.

By allowing a good sample of the major thinkers and scientists in a wide variety of fields to have a direct and largely unmediated voice in the chapters that follow, we hope to approximate in the pages of this book something like a Bakhtinian dialog. Rather than filter the unique and often idiosyncratic voices of many others through our own, more monologic, discourse, we let them speak for themselves. No voice inspires this volume more than that of Bakhtin, perhaps the most misunderstood and misappropriated major intellectual figure of the twentieth century. He is a central figure in this book, and he inspired its subtitle. Bakhtin's

moving statement about voices in the very last essay he wrote suggests in a profound way the importance of letting those whom we want to introduce to literary scholars speak for themselves: “I hear *voices* in everything and dialogic relations among them” (1986, 169). Voices indicate embodied cognition and human context.

The alternative approach to the current theoretical paradigm for literary study we lay out in this book is situated in the vast interdisciplinary area comprised of post-Chomskyan linguistics and pragmatics, evolution, biology, and contextualist embodied cognitive science (which is non-Cartesian and not allied with the disembodied COGNITIVISM that compares the human brain to the computer). Throughout this book, we employ small caps for the terms COGNITIVISM (and COGNITIVIST) and THEORY (together with THEORIST and THEORETICAL) to refer not generally to all theory, but to that which implicitly or explicitly excludes the biological, the linguistic, and the psychological foundations of human experience, particularly the creation and enjoyment of literature and performance. We also write CONTEXTUALISM in small caps, but refrain from doing so with related words such as context, contextual, contextualize, and so forth. This usage calls attention to the concepts and theoretical approaches with which we take issue due to their incompatibility with contemporary science. It also calls attention to the alternative that we propose, which does not take one neat form, but diverges in many directions, with the common ground resting in conscious efforts to align with current scientific developments and to integrate the science and humanities whenever possible. Both realms are enriched as a result, and the humanists’ voices are not lost in the growing sea of STEM researchers.

4 A ROADMAP TO CONTEXTUALISM: BOOK LAYOUT AND CHAPTER SUMMARIES

Part I, “Linguistics and the Legacy of Bakhtin’s Philosophy of Language,” deals with foundational theories of language in the twentieth century and consists of three chapters. Chapter 2 briefly reviews the important contributions to the study of linguistics by Ferdinand de Saussure, followed by a critique of these theories, particularly outlining the role of Russian philosopher and theorist Mikhail Bakhtin in pointing out the shortcomings of Saussure’s work, namely its lack of regard for linguistic aspects such as change over time, syntax, and, most importantly for the purposes of this book, context.

Next, in Chapter 3, comes a schematic description and critique of some of the main currents in literary theory in the latter third of the twentieth century. In this third chapter, we set forth some of the foundations for documenting the profound conceptual shortcomings of contemporary THEORY. Previous critiques of the structuralist-semiotic-poststructuralist enterprise, we contend, have too often been superficial, needlessly heavy on jargon, and reliant—even if only implicitly—on the outdated linguistic theories of Saussure. This chapter also deals briefly with the major reorientation of the study of language, with its origin in Noam Chomsky's work in the 1950s and 1960s. Rejecting the structuralist and semiotic concept of language as a social entity, Chomsky grounds language in species biology and individual psychology. Normally, Chomsky is ignored by literary critics and theorists; when he is mentioned, it is most often in a distorted version of his earliest work, long since surpassed by him and others. Not infrequently, Chomsky appears merely as a footnote to Saussure, rather than recognizing him as Saussure's replacement. We assess Chomsky's major contributions to the study of language and review the work of two of the most influential successors to Chomsky who continue to develop his theories, namely Ray Jackendoff and Steven Pinker. The chapter ends with a brief note on the importance of Chomskyan and post-Chomskyan linguistics for literary scholars. We assert that if literary theory is to align with the contemporary scientific understanding of language, it must be anchored in modern biology and psychology.

Chapter 4 presents in more detail a contemporary of both Saussure and Chomsky: Mikhail Bakhtin, whose proto-pragmatism sets the scene for a consideration of the contemporary study of pragmatics—language in context. We have attempted to read the work of Bakhtin and his colleagues in a manner free of the Marxist, Christian, semiotic, and post-structuralist prejudices that have led many to misread and appropriate his stunningly original contributions to the study of language. We then turn to the rich pragmatic and cognitive trends in language study that most closely adhere to, derive from, and develop in parallel ways to Bakhtin's approaches. Particular emphasis is placed on the theory of relevance proposed by Dan Sperber and Deidre Wilson. These works provide a linguistic context for an approach to literature that owes nothing to Saussure, little to Chomsky (although much of it was made possible by the Chomskyan breakthrough), and very much (even when in ignorance of his work) to Bakhtin. It is this concept of language as a cognitive tool

employed by embodied human agents that, as we suggest, is most useful to literary scholars.

Part II, “Biology, Language, and the Brain,” deals with various facets of biology, the area of study that is generally least known and least understood by literary scholars, yet is most important to any contemporary discourse about things human. Thus, Chapter 5 starts from the premise of Darwin’s theory of evolution by natural selection, a subject about which many humanists are considerably uninformed (as were we before undertaking this study). This chapter opens with an outline of Darwinian Theory and the modern synthesis that provides the reigning paradigm for study in evolution, including Darwin’s theory of sexual selection, far less known than his theory of natural selection. We discuss some of the important work by major contemporary feminist biologists and women’s role in human evolution. To round out the review of evolution, we end with a short sketch of human evolution. We then turn to the topic most relevant to scholars dealing with language and literature: the evolution of language. This is a conflicted area of research, thus here we attempt to draw together some disparate approaches and theories into a coherent account of how one species, *Homo sapiens*, acquired the capacity to speak, and, later, write and read, symbolically.

The evolution, structure, and function of the brain are the focus of Chapter 6. Literary scholars should know what the brain is and how it works, at least in general outline, to begin to understand how it processes language in both oral and written forms. We also look at emotion and sexuality as related to the brain. At the heart of Chapter 7 is a discussion of the process of Neural Darwinism, as proposed by Gerald Edelman. Edelman’s theory of how the brain develops as a constant interplay between biology and environment is emblematic of one of this book’s main themes: the meaninglessness of the traditional nature-nurture binary. The latest research on the impact of electronic media on brain development and function is also discussed in this chapter. After a consideration of the brain in older adults, Chapter 7 ends with a brief summary of some recent advances in neurolinguistics.

Part III, “Psychology and the Development of the ‘Literary Mind,’” shifts the focus from biology to psychology and explores the concept of the mind-brain. The subject of Chapter 8 is the mind: the activity of the brain. Sometimes it is appropriate, or at least convenient, to refer to the brain, the physical structure, in opposition to the mind, the activity of the

brain. Very often, however, we would do best to refer to these two inter-related and mutually defining concepts by a single term, such as the one we prefer: the mind-brain. First and foremost, we present an approach to consciousness and concepts of self, based on the latest relevant research from scientific fields as well as the humanities. Since ideas related to selfhood and self-identity are central and crucial concerns in literary studies, this section illuminates particularly the pertinence of the integrated, interdisciplinary approach that we are proposing. Equally important is the section on perceptual systems, including the fact that not all perception is mediated by language, contrary to what is assumed in most THEORY. The chapter proceeds to a consideration of sleep and dreams, as well as of the cognitive unconscious, and a review of current knowledge about memory, another major focal point of literary and cultural studies today. Next, we consider narrative thought, schema theory, and categorization, ending with what we, following Mark Turner, call the “literary mind,” and the role of mental images and the creative imagination.

Chapter 9 provides an overview of some important issues in developmental psychology, beginning with the fact that the human mind is not, and by definition cannot be, a blank slate onto which ideology or language can inscribe itself. Recent advances in infant cognition and child development lead to conclusions that are radically at odds with the assumptions of psychoanalytic theory and other versions of developmental psychology that still inform much contemporary literary theory. Understanding how children’s minds develop from the very first hours after birth as the embodied infant grows and learns is crucial to understanding adult subjectivity, identity, and sense of self. The last section of this chapter deals with language acquisition by the child and the role of language in cognitive development. In Chapter 10, we discuss what is known in cognitive psychology as Theory of Mind (ToM). This term refers to the way in which we infer what we are thinking and what we think others are thinking and why they are thinking it. An awareness of our evolved ToM enables us to understand our own cognitive processes better. We elaborate in this chapter on the major theoretical approaches to the subject, the “theory theory” and the “simulation theory,” and review some common criticisms of both. The chapter ends with some observations on the role of ToM in language acquisition and comprehension, and how it relates intimately to literary and performance study. ToM is one of the richest areas that contemporary cognitive psychology opens

up to literary and performance scholars, which is why we devote an entire chapter to it.

Part IV, “Context in Science and the Humanities,” compares two major approaches to cognition: one, here called **COGNITIVISM**, posits a computer model for the mind, while the second, **CONTEXTUALISM**, emphasizes instead the embodied, contextualized character of cognitive processes. In Chapter 11, we describe the orientation toward computation and discuss the possibility of constructing genuinely intelligent machines and robots. We reject this mechanistic approach entirely as a framework for literary studies. Significantly, both the **COGNITIVIST** approach to strong artificial intelligence (brain = computer) and the cognitive assumptions that underlie much contemporary **THEORY** share the basic tenets of behaviorism, the approach to psychology that limits itself to empirical studies of external behavior and casts the mind as an inscrutable black box.

In Chapter 12, we explore at length the second of the theoretical approaches to cognition, **CONTEXTUALISM**, recommending it as the ideal framework for undertaking literary and performance studies. This chapter is the heart of this book, laying out why post-Chomskyan linguistics, cognitive science, biology, and evolutionary theory are the most appropriate contexts for literary research. We begin by describing an alternative to mechanism as an overarching worldview: the contextualist metaphor, as laid out brilliantly by psychologist Diane Gillespie. Just as Bakhtin realized that the reality of language lies in its organic and dynamic use in specific contexts, contextualist approaches similarly understand that the human context is crucial. The researchers referenced in this chapter recognize the necessity of taking context into consideration in all things human. First and foremost among these scholars are Humberto Maturana and Francisco Varela, two Chilean neurobiologists who developed the concept of *autopoiesis*, an organism’s self-organization within—and its structural coupling with—its environment. This concept implies a rewriting of both evolutionary and social theory, and it is closely related to (and lays a foundation for) a series of related conceptual approaches to what is now called embodied cognition: dynamical systems theory, constructivism, ecological psychology, cultural psychology, and developmental psychology. Chapter 13 discusses evolutionary psychology (and its predecessor, sociobiology), which is the discipline that most explicitly unites biology and psychology and the discipline that is the most egregiously

misunderstood (and most bitterly attacked) among the contemporary fields relevant to the contextualist framework.

Part V “Contextualism—Changing the Paradigm in Literary and Performance Studies for the Twenty-First Century” includes three summarizing and concluding chapters dealing with work compatible with the cognitive-biological framework outlined in preceding chapters. Chapters 14 and 15 offer overviews of selected contemporary published scholarly work that is grounded in a cognitive paradigm. There is no single cognitive approach to literary and performance studies: recent findings from modern linguistics, biology, and psychology collectively provide the beginnings of a paradigm, and many of these studies can be taken as models of various ways to approach the humanities more generally.

Chapter 16 recapitulates this book’s major points, emphasizing that we are not providing a solitary method for analysis but rather an argument for a change in mindset that yields new and more meaningful ways to read, understand, discuss, write about, and theorize about literature, film, and performance, in a way that is compatible with the cognitive-biological framework outlined in the preceding chapters and supported by Bakhtinian dialogism. We begin this concluding chapter with a review of the various paths one can take with cognitive literary and performance studies, pointing out not only where these paths diverge but also where they converge, namely in the bridging approach of CONTEXTUALISM. Paradigm shifts always take time, but—particularly given the crisis that the humanities currently face in terms of funding support and credibility—the moment for such a major shift is now. We suggest it is time to stop talking and writing in terms of signification and information processing and to start listening to *voices*—the voices of embodied human beings in context.

NOTES

1. An indication of this is that in recent years only a handful of papers at the Modern Language Association Convention directly have addressed poststructuralism, as a perusal of the convention program archives attests, and those that did have titles implying a post-poststructuralist standpoint, such as “Beyond Poststructuralism: Teaching Theory in the Digital Era” (William Stephen Davis, 2012), “What Comes after Poststructuralism? New Ecological Realisms in Contemporary Theory” (Monika Kaup, 2016), and “New Realisms

after Postmodernism and Poststructuralism” (session title, 2018). At the same time, a number of papers at the convention continue to (re)consider the thinkers of poststructuralism and deconstruction like Deleuze, Foucault, and Derrida, usually in an at least implicit assertion of the theorists’ continued relevance. In a recent monograph, Johannes Angermuller (2015) interestingly reflects on the potentially useful interaction between the poststructuralism that shaped an “intellectual generation” and contemporary social theory. More importantly though, Angermuller poses a reasonable question that aligns with one of our stances in this book, namely that the application of theory for theory’s sake is neither tenable nor justifiable methodology: “Is the phenomenon of poststructuralism not an example of a movement whose unity is an imaginary effect of its reception?” (20).

2. Exceptions include the journal *Derrida Today* and its related conference, which are still going strong in their attempts to maintain the relevance of deconstructionism. The journal’s mission is stated as follows: “*Derrida Today* focuses on what Derrida’s thought offers to contemporary debates about politics, society and global affairs. Controversies about power, violence, identity, globalisation, the resurgence of religion, economics and the role of critique all agitate public policy, media dialogue and academic debate. *Derrida Today* explores how Derridean thought and deconstruction make significant contributions to this debate, and reconsider the terms on which it takes place. *Derrida Today* invites papers that deal with the ongoing relevance of Derrida’s work and deconstruction in general to contemporary issues; the way it reconfigures the academic and social protocols and languages by which such issues are defined and discussed, and innovative artistic practices that adopt a ‘deconstructive’ approach to how our contemporary situation can be represented” (<http://www.eupublishing.com/loi/drt>).
3. See for instance, Sara Ahmed’s *The Cultural Politics of Emotion* (2004) and other work that focuses on affect and embodiment.
4. With his notion of dialogism, Bakhtin conceptualized human expression of all sorts as existing not in a decontextualized environment but always in dialog with past and (potential) future expressions: “... every extra-artistic prose discourse—in any of its forms, quotidian, rhetorical, scholarly—cannot fail to be oriented toward the ‘already uttered,’ the ‘already known,’ the ‘common opinion’ and so forth.

The dialogic orientation of discourse is a phenomenon that is, of course, a property of any discourse. It is the natural orientation of any living discourse. On all its various routes toward the object, in all its directions, the word encounters an alien word and cannot help encountering it in a living, tension-filled interaction” (Bakhtin 1981, 279).

5. Vol. 95, Issue 1–2, January/February 2017. Edited by Larry Cahill.
6. See, e.g., Dean et al. (2016) as cited in *ScienceDaily* (Leiden).
7. For example: “When diagnosed with breast cancer, women are faced with quite a lot of threatening information that may substantially hinder their cognitive abilities and decision making (e.g., during informed consent) and, eventually, result in gender-specific (and often suboptimal) coping with the disease (see, e.g., Sokolov et al. 2016)” (Pavlova 236–37).

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