

Pilar Martinez Benedi
“Sapienza” Università di Roma

The “Cognitive Turn”: A Short Guide for Nervous Drivers

Abstract

In this brief primer on the emergent field of cognitive literary criticism, I aim to offer a tentative outline of its more representative lines of research after roughly twenty to twenty five years of activity. One of my main concerns will be to attend to some of the main objections that the field has been charged with in its short life, and to highlight the ways in which cognitive critics have addressed such objections. After a brief sketch of the main fields of activity, I will consider some of the possible future directions, with a focus on the different ways in which cognitive critics have embraced enactive approaches to embodied and embedded cognition.

All turns generate anxiety – left turns, right turns, and especially U-turns do. In the field of literary driving, the “cognitive turn” seems to generate more anxiety than would be advisable for road safety. Literary and cultural critics are nervous: this turn seems to lead to a too eclectic and at the same time too reductive a road. Ever since the cognitive turn started, roughly in the last two decades, practitioners in the field have been repeatedly ticketed for a number of infractions¹. Cognitive approaches are seen, at best, as little

¹ The main charges were raised by Hans Adler and Sabine Gross in their response to a special issue of “Poetics Today” on “Literature and the Cognitive Revolution” (vol. 23, no. 1). See Adler and Gross, *Adjusting the Frame: Comments on Cognitivism and Literature*, “Poetics Today”, 23, 2, 2002, pp. 195-220. For a pointed, though constructive, critique of interdisciplinarity in cognitive literary studies, see Tony Jackson, *Issues and Problems in the Blending of Cognitive Science, Evolutionary Psychology, and Literary Study*, “Poetics Today”, 23, 1, 2002, pp. 161-179. For a recent brief overview of the most frequent objections see Lars Bernaerts, Dirk de Geest, Luc Herman, and Bart Vervaeck, *Introduction. Cognitive Narrative Studies: Themes and Variations*, in Bernaerts, de Geest, Herman and Vervaeck (eds.), *Stories and Minds*, University of Nebraska Press, Lincoln, 2013, pp. 1-20.

more than confirming previous critical readings, and hence, useless. The field is also seen as too undisciplined: scholars coming from different routes are seen to be drawing on too diverse notions, hypotheses and tools from the cognitive sciences quite promiscuously and at their best convenience. The purported interdisciplinarity of the field doesn't seem to be an argument convincing enough to tie together a set of loosely related critical practices. But by far, nervousness is palpable in the much more passionate charge of reductionism and positivism, more so after the more recent "neuroscientific turn." The fear is that literary expression be reduced to its cognitive dimensions – or worse, to neural circuits in the brain. Cognitive literary criticism is seen as privileging nature over culture, scientific empiricism over historicism and cultural theory, thereby adding an unwelcome note of disambiguation to a field that values the undecidability and indeterminacy of cultural artifacts.

Of course, one might argue, some degree of nervousness is neither a new nor a unique phenomenon. Every new paradigm – the "Marxist turn," the "psychoanalytic turn," etc. – has generated its own kind of anxiety. Only, in this case the anxiety seems somewhat stronger: the road sign "cognitive" seems to be way more intimidating to learner's permits and expert drivers alike. Why? Is this turn different from previous ones? Is it because the humanities and the cognitive sciences are felt to be two too distant fields of knowledge? Encountering such expressions as "proprioception", "prefrontal cortex", or "fMRI" in a piece of literary criticism may be unsettling, no doubt, but the real risk, some argue, is not merely terminological. Should we be afraid that by turning onto the cognitive junction we are bound to leave the Humanities road for good – that we are leaving the tortuous highroad of difference for the straight motorway of universals?

At the same time, though, the field is in continuous expansion. The last two decades have witnessed an increasing number of publications – articles, monographs, edited collections and special issues in specialized journals – as well as dedicated websites, conferences, joint programs and discussion groups with institutional support. Such a trafficked road may of course further increase anxiety, but it certainly bolsters interest and curiosity too:

where can all these people be going? Do they know their way? Is the road safe? And, where does it lead?

In what follows, I will try to show that this road is not necessarily as unwelcoming as it may seem at first sight. I will analyze the main reasons for anxiety, and the different ways in which such anxiety has been addressed by the most careful drivers of the field, as well as the most promising future directions of the cognitive road.

1. *Cognitive Turn and Cognitive Revolution(s): From Computational to Embodied Minds*

Part of this anxiety, understandably enough, comes from the very modifier of the turn. As opposed to, say, “Marxist”, “feminist”, or “psychoanalytical”, the term “cognitive” itself provides too little (or, too «vague, broad and unstable»)² information about the road we are merging onto. As a result, coming up with a working definition of cognitive literary criticism seems a strenuous task. Consider Alan Richardson’s proposed formulation as «the work of literary critics and theorists vitally interested in cognitive science and neuroscience, and therefore with a lot to say to one another, whatever their differences»³. Such an omnivorous definition leaves our problem intact: what do we mean by “cognitive”? Needless to say, in this context the term cannot refer simply to the study of literature in relation to the workings of the human mind. Such a study enjoys a long tradition that goes back to classical rhetoric and to the interest in the didactic function of literature, as well as in the psychoanalytical and reader response traditions⁴. This traditional road is clearly distinct from our freshly-minted, intimidating “cognitive turn”. More likely, the discriminating factor in the above defini-

² Alan Richardson, *Studies in Literature and Cognition: A Field Map*, in Alan Richardson and Ellen Spolsky (eds.), *The Work of Fiction*, Ashgate, Aldershot (UK), 2004, pp. 1-25, 1.

³ *Ivi*, p. 2.

⁴ See Isabel Jaén and Julien J. Simon, *Introduction* in Jaén and Simon (eds.) *Cognitive Literary Studies. Current Themes and New Directions*, University of Texas Press, Austin, 2012, pp. 1-9, 1-2.

tion is the explicit reference to “science” and “neuroscience” – a reference that stresses the relational nature of the field. Accordingly, to understand the import of the “cognitive turn” in literary criticism we need to attend to the developments in the cognitive sciences during the last half century, in the wake of the “cognitive revolution”, when the interdisciplinary conversation between scientists and humanists of which cognitive literary criticism is a quintessential example began to take shape.

What we currently understand by “cognitive science” is actually a multidiscipline that includes cognitive psychology, computer science (AI and robotics), anthropology, cognitive linguistics, neuroscience, and philosophy of mind. The first phase of the so-called “cognitive revolution” is conventionally located in the 1950s, following Noam Chomsky’s generative linguistics and the work of computer scientists, mainly on artificial intelligence. While this first phase is in many respects diametrically opposed to the current trends in cognitive science, it is nonetheless crucial for at least two cumulative reasons. First, it challenged the predominant behaviourism, with the idea that not only observable behaviours but also their underpinning cognitive processes could be scientifically studied. Second, its governing metaphor (the mind as a computer or as a machine) as well as the belief in a universal, innate linguistic capacity brought about a renewed interest in the cognitive processes of the human mind/brain.

Paradoxically, our current use of the term “cognitive” departs from this initial “cognitivism”, a reserved lane used mainly by first-generation cognitive scientists that focus on the mental processes of a computational mind⁵. While the lane is still in use, in its more widespread sense the term “cogni-

⁵ The term “cognitivism” is sometimes used as a synonym with “cognitive” even today and even by practitioners who endorse the notion of the embodied mind, like Patrick Colm Hogan. In this sense, the editors of a recent collection on cognitive narrative studies define “cognitivist” as «the term we use in a strict sense for those forms of inquiry that focus not on the reader’s subjective experience but on the mental operations required to comprehend narratives.» (Bernaerts et al., *Introduction* cit., p. 8). While this use of the term seems widely accepted, I will use “cognitivism” to refer to the first stage of the cognitive revolution, to oppose the “computational mind” to the embodied mind. For more on cognitivism, see Francisco Varela, Evan Thompson and Eleanor Rosch, *The Embodied Mind. Cognitive Science and Human Experience*, MIT Press, Cambridge (Massachusetts), 1993, pp. 7ff and 34-57.

tive science” is today inextricably linked to the concept of the “embodied mind” as emerging from the so-called “second cognitive revolution”⁶. The logical model of the mind that first-generation cognitive scientists posited proved unable to fully account for the complex ways in which human beings interact with the environment. The adherents of the “brain in a vat” argument were thus gradually forced to yield the way to the upcoming proponents of an embodied mind/brain deeply embedded in the environment that were arriving from converging roads. Starting from the 1980s, a number of researchers from different fields have been proposing and modulating the notion of “situated cognition”, an umbrella term that shelters varied notions of embodied, embedded and extended cognition. During the last two decades of the twentieth century, the work of linguists like George Lakoff, philosophers like Mark Johnson and Evan Thompson, psychologists like Eleanor Rosch and Lawrence Barsalou, and neuroscientists like Antonio Damasio⁷ yielded some of the basic tenets of the new, embodied approach to the human mind. Cognition is now seen as embodied (i.e. shaped by the body) and embedded (i.e. in its interactions with the natural and social environment)⁸. The mind is also understood as “enactive”, a term that challenges the cognitivist assumption that «cognition consists of

⁶ For an excellent overview of the transition between the first and the second phase of the “cognitive revolution”, see Mary Thomas Crane and Alan Richardson, *Literary Studies and Cognitive Science: Toward a New Interdisciplinarity*, “Mosaic”(Winnipeg) 32, 2, June 1999, p. 123.

⁷ Foundational texts include: George Lakoff and Mark Johnson, *Metaphors We Live By*, University of Chicago Press, Chicago, 1980 and *Philosophy in the Flesh. The Embodied Mind and Its Challenge to Western Thought*, Basic Books, New York, 1999; Mark Johnson, *The Body in the Mind. The Bodily Basis of Meaning, Imagination, and Reason*, University of Chicago Press, Chicago, 1987; Francisco Varela, Evan Thompson and Eleanor Rosch, *The Embodied Mind* cit.; Lawrence Barsalou, *Perceptual Symbol Systems*, “Behavioral and Brain Sciences”, 22, 1999, p. 577-660; Antonio Damasio, *Descartes’ Error. Emotion, Reason, and the Human Brain*, Avon, New York, 1994, and *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*, Harcourt, New York, 1999.

⁸ In a fascinating and unexpected turn of the notion of embodiment, cognition is also seen as “extended”, reaching, that is, beyond the bodily boundaries of single organisms. For an introduction to the notion and components of situated cognition, see Philip Robbins and Murat Aydede, *A Short Primer on Situated Cognition*, in Philip Robbins and Murat Aydede (eds.) *The Cambridge Handbook of Situated Cognition*, Cambridge University Press, Cambridge, 2008, pp. 3-10.

the representation of a world that is independent of our perceptual and cognitive capacities»⁹ and emphasizes the active, shaping role of the human mind according to the affordances for possible action that the environment provides. Whereas classic cognitivism conceives of cognition as symbolic, amodal mental representation (that translates sensory experience into an abstract, propositional language in order to be processed), current views of the embodied mind focus on the sensorimotor basis of cognition, which is conceived of as a modal form of representation: we quite literally think with our senses and our bodies. Moreover, the focus on the body as a whole, including the sensory organs, musculoskeletal system and peripheral nervous system, in addition to the brain, reassesses the role of perception, emotion and affect in “intellectual” cognition.

Research on embodied or “situated” cognition has continued at an increasing pace well into the twenty-first century, aided by the new and ever-developing neuroimaging technologies¹⁰. Many recent neuroscientific studies are supporting and nuancing the mainstays of embodied cognition. However cognitive (neuro)science still has its ragged edges. Neuroscientists are far from having a clear picture of the human mind, and there is still debate over a number of questions: from the modularity of the mind, to the propositional or modal nature of mental representation, the role of nature and culture in cognition, and so forth. Hardly any concept in the neurosciences is settled. Not only is scientific research rapidly updating what we

⁹ See Varela et al., *The Embodied Mind* cit., p. xx. Varela, Thompson and Rosch are the main proponents of the “enactive approach” to human (embodied) cognition back in the early 1990s – an approach that is increasingly being taken up by researchers with a strong commitment to embodiment, and to which I will return in the later part of this paper.

¹⁰ The recent “neuroscientific turn” has generated its own kind of anxiety, into which I cannot delve in this short paper. The risks of reductionism inherent in the current “neuroenthusiasm” are evident enough, especially for the layperson. One should be careful enough to take brain-imaging with a grain of salt, as texts that need to be themselves interpreted. However, current neuroscience is not to be intended necessarily as a “new phrenology”, obsessed with mapping outer phenomena into cortical regions. There is some of that, of course, but while neuroscience alerts to the centrality of the brain, many neuroscientists subscribe to the idea that “we are not our brains” but whole and complex perceiving and acting bodies in our environment.

know about the mind/brain, but also different (even apparently incompatible) models of mind coexist. Moreover, as neuroscientist Vittorio Gallese lamented as late as 2011, «[c]lassic cognitivism, like a dead star, still emits light»¹¹, undercutting sometimes the strength of embodiment, and offering a picture of mind «more “cognitive” and/or disembodied than it needs to be»¹². Embodied cognition is far from a unitary term.

2. *Slippery Roads and Responsible Driving*

Admittedly, the cognitive science and neuroscience that cognitive literary critics are «vitaly interested in», as Richardson would have it, is a pretty slippery road. Cognitive science is in itself a multidiscipline and the cognitive landscape is ever-changing, with coexisting or shifting models of mind. Because cognitive literary criticism is defined by its dynamic relations with such a fuzzy cognitive science, there might be some reasons for anxiety after all.

One of such reasons stems from the self-proclaimed interdisciplinarity of the field. Indeed, many practitioners unabashedly admit that theirs is an approach or a stance, rather than an organic theory¹³. But this interdisciplinarity arouses suspicions, ranging from the relatively innocuous doubts about the very necessity of an interdisciplinary conversation between science and literary criticism (i.e. “did we really need cognitive science to say that?”) to the more grave concern about the compatibility of the epistemological foundations of each discipline¹⁴. Interdisciplinarity, moreover, car-

¹¹ Vittorio Gallese and Hannah Wojciehowski, *How Stories Make Us Feel. Toward and Embodied Narratology*, “California Italian Studies”, 2,1, 2011.

¹² *Ibid.*

¹³ See H. Porter Abbot, *Cognitive Literary Studies: The “Second Generation”*, “Poetics Today”, 27, 4, 2006: pp. 711-722, 714.

¹⁴ Tony Jackson has provided an excellent analysis of the crucial issues that interdisciplinarity brings about to cognitive literary studies. According to Jackson, the reason why the academic literary establishment has not welcomed cognitive literary criticism lies largely on «a fundamental difficulty with this version of inter-disciplinarity» (Jackson, *Issues and Problems in the Blanding of Cognitive Science, Evolutionary Psychology, and Literary Study* cit., p. 176). Jackson’s response to the cognitive turn dates back to 2002, a dawning

ries with it a further risk, especially when we are dealing with disciplines as diverse as the hard sciences and the humanities. As Alan Richardson has pointed out, quoting from Ellen Spolsky, one common mistake is that of «assuming that hypotheses presented in a field one follows as an “amateur” are “(somehow) more reliable than the more familiar, but embattled assertions” in one’s own field»¹⁵. The danger may be not only that of a lopsided interdisciplinarity that simplistically plugs the vocabulary of cognitive science into literary criticism¹⁶, but of plainly getting it wrong. Moreover, because the cognitive sciences are not a unified discipline, one should be very careful as to «what is and is not osmosing across the membranes dividing the sciences and the humanities»¹⁷.

Sure enough, this interdisciplinary venture may entail a clear and present danger, but nothing that cannot be avoided by responsible driving. The anxiety arising from a problematic interdisciplinarity might be easily downsized when we recognize that serious cognitive literary criticism does not entail the uncritical adoption of the ideas, hypotheses and methodologies of the cognitive sciences to literary criticism. To the contrary, the vast majority of the cognitive drivers are aware of the lack of consensus among cognitive scientists on many issues, of the intrinsic limitations of brain imaging technologies, of the dynamic and ever-shifting nature of the field they are in conversation with. Rather than uncritically transposing the findings of the cognitive sciences to literary concerns, practitioners of the field are increasingly engaging in a more bidirectional, full-blown interdisciplinary conversation that aims to bring a humanistic perspective to the kind of new questions that cognitive science elicits.

stage in cognitive literary studies. In his acute analysis, Jackson himself recognizes that at the time cognitive critics were «still working out fundamental concepts and operating procedures. In fact, in the future we may well look back at these kinds of attempts as part of a phase or a stage on the way to a more full-blown interdisciplinarity to come» (*Ivi*, 162). With the risk of sounding overly optimistic, I would argue that Jackson’s foreseen future is underway.

¹⁵ Richardson, *Studies in Literature and Cognition* cit., p. 2.

¹⁶ Jackson, *Issues and Problems in the Blanding of Cognitive Science, Evolutionary Psychology, and Literary Study* cit., p. 173.

¹⁷ Gallese and Wojciewowski, *How Stories Make Us Feel* cit.

However, a stubborn line of criticism toward cognitive literary criticism persists, unsurprisingly, when its dynamic conversation with cognitive science is viewed, rather, as unconditioned commitment or uncritical acceptance. (I have been accused of being “bowing at the altar of science” myself.) Cognitive approaches to literature, so the criticism goes, reduce all things literary to neurobiological processes, disavowing the field’s allegiance to social constructivism, to historicist, cultural and ideological modes of analysis. The field is seen as «the most concerted challenge to theory’s rule» inasmuch as it represents «an attempt to put literary analysis on a more empirical, scientific, physicalist footing, by adapting the tools and approaches of mind-embodiment science»¹⁸. Oblivious to a good amount of contrary evidence, the idea that cognitive literary studies deliberately «turn away from the historical, social and political conditions that shape the literary, toward the universal structures of cognition»¹⁹ is quite widespread still today.

While the charge of radical empiricism may have seemed sensible enough at the dawn of the cognitive turn, it loses ground once we attend to the epistemological stance most of cognitive critics take – and to the kind of work that has been done to date. Analyzing such stance in 2001, Elizabeth Hart admitted that, because cognitive literary studies rely on scientific studies «some degree of epistemological efficacy in scientific empiricism»²⁰ is axiomatically accepted. However, the degree of this acceptance needs to be modulated. On account of its underlying notion of human (embodied) cognition – that is believed to be neurobiologically constrained, yet also «environmentally situated, context-dependent and culturally indexed, i.e., subject to lesser or greater degrees of constructivism»²¹ – cognitive literary criticism «shifts the terms of age-old epistemological debate from a binary to a continuum of positions that enables, to varying degrees, a unique syn-

¹⁸ Paul Sheehan, *Continental Drift: The Clash between Literary Theory and Cognitive Literary Studies*, in Chris Danta and Helen Groth (eds.), *Mindful Aesthetics: Literature and Science of Mind*, Bloomsbury, London, 2014, pp. 47-58, 48.

¹⁹ *Ivi*, p. 53.

²⁰ Elizabeth Hart, *The Epistemology of Cognitive Literary Studies*, “Philosophy and Literature” 25, 2, 2001, pp. 314-344, 314.

²¹ *Ivi*, p. 326.

thesis of realist and relativist perspectives»²². Along this epistemological continuum, argues Hart, varying positions might be found, closer or farther to either end of the spectrum, or to a true middle ground between realism/essentialism and relativism/constructionism²³. Now, much of this portion of criticism tends to conflate (quite tendentiously) cognitive sciences with “cognitivism” or, more frequently, cognitive literary criticism with “evolutionary criticism” or “literary Darwinism”²⁴, a relatively smaller but energetic group of scholars that position themselves on the realist/essentialist end of the spectrum. This group, from which many cognitive critics (such as Elizabeth Hart, Alan Richardson and Lisa Zunshine) openly differentiate themselves, sees literature as a mere biological phenomenon, a by-product of evolution, and overtly disregards the role of culture in literary production²⁵.

In case Hart’s “epistemology of the continuum” sounded too theoretical and abstract, one would just need to attend to the work of many cognitive critics that are actually, and practically, trying to reconcile cognitive approaches with “theory”. Indeed, Ellen Spolsky, one of the pioneers of the field, has made a long-standing case for the compatibility (even affinities) between post-structuralism and cognitive and evolutionary literary criticism²⁶. Stressing the “gappy” nature of human cognition and the flexibility of the brain, which allows for cultural and social conditioning, Spolsky advocates the new materialism of the embodied mind as a supplement, rather than a displacement, of cultural materialism²⁷. More recently, Paul Arm-

²² *Ivi*, p. 316.

²³ *Ivi*, p. 327.

²⁴ As late as 2014, in his critical view of cognitive literary studies as objectivist and reductionist, Paul Sheehan, for example, repeatedly refers to the work of literary darwinists such as Joseph Carroll and Brian Boyd to support his claims about the anti-theoretical stance of cognitive literary criticism. See Sheehan, *Continental Drift* cit., *passim*.

²⁵ For more on literary Darwinism, see Richardson, *Studies in Literature and Cognition* cit. 12-14.

²⁶ See Ellen Spolsky, *Darwin and Derrida. Cognitive Literary Theory as a Species of Post-Structuralism*, in “Poetics Today”, 23, 1, pp. 43-62.

²⁷ See Ellen Spolsky, *Gaps in Nature. Literary Interpretation and the Modular Mind*. SUNY, Albany, 1993. For a good discussion of her work, see Richardson, *Studies in Literature and Cognition* cit., p. 19-20.

strong has offered a compelling reading of «the neurobiological basis of aesthetic experience»²⁸ that brings to light hitherto overlooked connections between the workings of the human brain and the hermeneutic circle²⁹. Scholars like Patrick Colm Hogan and Suzanne Keen successfully exemplify how a cognitive approach may fruitfully interact with postcolonial theory, providing new grounds from which to rethink the tension between human universals and particular cultural identities, with an emphasis on questions of empathy and emotion as emerging from postcolonial writing³⁰. In a field as determined by social constructivism as disability studies, Ralph Savarese's innovative work shows how neuroscience, rather than pathologize cognitive difference, allows to imagine poetic language as a meeting ground or «neurocosmopolitan» terrain of diverse neurologies that enables the «de-thronement of privileged neurotypicality»³¹. The work of these and other

²⁸ Paul Armstrong, *How Literature Plays with the Brain. The Neuroscience of Reading and Art*, The Johns Hopkins University Press, Baltimore, 2013, p. xiv.

²⁹ Armstrong takes issue with much of the work done by cognitive literary critics so far, for two apparently contradictory reasons: their focus on cognitive psychology, rather than on neuroscience; and, their widespread disregard of phenomenology and the hermeneutic tradition. Letting aside the extent to which his objections are sound, Armstrong's book is highly informative and useful for those with an interest in neuroscience, inasmuch as it takes up many of the «hot» issues that neuroscience brings to bear on literary criticism (including the neuroscience of reading, top-down/bottom-up feedback loops, mirror neurons and social cognition). However, his avowed purpose of revealing convergences (correlation rather than causality) between the structure and functioning of the brain, on the one hand, and the experience of reading and literary interpretation, on the other, ends up by providing a rather uneven interdisciplinary account that runs the risk of losing sight of literature.

³⁰ See, for example, Suzanne Keen, *Empathy and the Novel*, Oxford University Press, Oxford, New York, 2007 and Patrick Colm Hogan, *On Being Moved. Cognition and Emotion in Literature and Film*, in Lisa Zunshine (ed.) *Introduction to Cognitive Cultural Studies*, Johns Hopkins UP, Baltimore, 2010, pp. 237-256. For a more general view of the controversial relationship between cognitive universals and cultural specificity, see Hogan's seminal *Literary Universals*, «Poetics Today» 18, 2, 1997, pp. 223-249.

³¹ Ralph Savarese and Lisa Zunshine, *The Critic as Neurocosmopolite; Or, What Cognitive Approaches to Literature Can Learn from Disability Studies: Lisa Zunshine in Conversation with Ralph James Savarese*, «Narrative», 22, 1, 2014, pp. 17-44, p. 20. See also *I Object: Autism, Empathy, and the Trope of Personification*, in Megan Marie Hammond and Sue J. Kim (eds.) *Rethinking Empathy through Literature*, Routledge, New York, 2014, pp/ 74-92; *What Some Autistics Can Teach Us about Poetry: A Neurocosmopolitan Approach*, in Lisa Zunshine (ed.) *The Oxford Handbook of Cognitive Literary Studies*, Oxford UP, Oxford, 2015.

scholars shows how engaging with the insights of cognitive neuroscience does not preclude «commitment to the enduring value of explanations at the literary and cultural levels of analysis»³².

I will go back to some of these issues later on. So far, I have analyzed some reasons for anxiety and identified some of the main dangers of the cognitive road, as well as the ways in which (responsible) cognitive drivers are addressing both anxieties and dangers. But to have a clear picture of the cognitive turn, we still need to see what our road looks like and, possibly, where it may take us, in the short and the long run.

3. *Lanes, Road Works, and Next Exits*

With greater or lesser success the more responsible literary drivers in the cognitive turn have endeavoured to supplement, rather than displace, the peculiar tradition of literary and cultural theory with the new materialism emerging from the cognitive sciences. But what these cognitive drivers exactly do as yet remains largely unsaid. Cognitive literary criticism is not an organic theory, but a stance; not a cohesive discipline, but a set of critical practices loosely related by a shared common interest – I hope this much is clear. It would therefore be preposterous to try to draw a detailed road map of a field famously characterized by its «fuzzy boundaries and overlapping memberships»³³. In what follows, rather than attempting an exhaustive diachronic or synchronic overview of the field³⁴, I will sketch out some of the more representative trends in the field, to then track some of the new developments of the last few years that point to future directions.

³² Richardson, *Studies in Literature and Cognition* cit., p. 24.

³³ *Ivi*, p. 3.

³⁴ A kind of work that has successfully been done in the last twenty years. In addition to Richardson's "field map" (*Studies in Literature and Cognition* cit.), other good overviews may be found in: Mary T. Crane and Alan Richardson, *Literary Studies and Cognitive Science* cit.; Lisa Zunshine, *Introduction. What Is Cognitive Cultural Studies*, in Zunshine (ed.), *Introduction to Cognitive Cultural Studies* cit., pp. 1-33 (see also her introductions to each part of the collection); Isabel Jaén and Julien Simon, *An Overview of Recent Developments in Cognitive Literary Studies*, in Jaén and Simon (eds.), *Cognitive Literary Studies* cit., pp. 13-32.

After roughly twenty to twenty-five years of activity, though, some tentative outline may be essayed. The work of an increasing number of scholars sharing a common interest in the cognitive sciences and coming from different fields has yielded a number of subfields, from cognitive rhetoric and poetics, to cognitive narratology and cognitive materialism and historicism, to name just some of the most jammed lanes of activity. There are no continuous dividing lines, and most practitioners change lanes at ease. While bonded by their shared engagement with cognitive science, the marked differences among cognitive critics results in a pretty heterogeneous road. Cognitive critics bring to the field their own different backgrounds (their focal literary traditions and periods, theoretical assumptions, methodologies) and at the same time their respective approaches to the cognitive sciences vary as well.

In this multi-laned road, cognitive rhetoric and cognitive poetics were two of the first lanes to be opened to the traffic, under the influence of cognitive linguistics. Both fields draw heavily on the main assumption of grounded cognition: the human conceptual system is metaphorical and grounded on our embodied experience of the world³⁵. However, their respective agendas could hardly be more divergent. The main assumption of cognitive rhetoricians is the idea that the mind itself is literary³⁶. Rather than peculiar to literary language, rhetorical figures and devices, from metaphors to “stories”, are fundamental components of everyday cognition. Building on concepts such as “conceptual metaphor” and “conceptual blending”³⁷, cognitive rhetoricians such as Mark Turner emphasize the continuities between literary and non-literary forms expression. Conversely,

³⁵ In keeping with the “conceptual metaphor theory” (See George Lakoff and Mark Johnson, *Metaphors We Live by* cit.) See also Lawrence Barsalou, *Grounded Cognition*, “Annual review of Psychology”, 59, 2008, pp. 617-645.

³⁶ See Mark Turner, *The Literary Mind*, Oxford UP, Oxford, New York, 1996.

³⁷ Developed by Mark Turner and Gilles Fauconnier, “conceptual integration” or “blending” is conceived of as a basic everyday cognitive process consisting in the integration of different mental packets of meaning (two or more schematic frames of knowledge, or scenarios, for instance) to create a third mental packet with new, emerging meaning. See Mark Turner, *The Cognitive Study of Art, Language and Literature*, “Poetics Today”, 23,1, 2002, pp. 9-20.

cognitive poetics aim to individuate the cognitive bases of literariness. Recasting traditional notions of “defamiliarization” and “foregrounding” in cognitive terms, Reuven Tsur has endeavoured to show how poetic language evokes a “pre-categorical flow of information” that normally escapes conscious awareness³⁸. Tsur’s pioneering work on the “pre-categorical” elements of cognition (admittedly speculative, although borrowed from speech researchers) was largely ignored by his near contemporaries in the 1990s, but it has been more recently taken up by some researchers, as it will be seen soon.

Another lane that has attracted a great deal of attention from an early stage of the cognitive turn is cognitive narratology, which has been defined as «the study of mind-relevant dimensions of storytelling practices wherever – and by whatever means – those practices occur»³⁹. Again, this is too an omnivorous definition – it will be more productive to see what cognitive narratologists actually do. David Herman, one of the leading practitioners of the field, describes cognitive approaches to narratology as “postclassical” approaches «that build on the work of classical, structuralist narratologists but supplement that work with concepts and methods that were unavailable to story analysts such as Roland Barthes, Gérard Genette, A.J. Greimas, and Tzvetan Todorov during the heyday of the structuralist revolution»⁴⁰. Some of the issues to which “postclassical” narratologists are applying the concepts and methods of the cognitive sciences are: cognitive-oriented accounts of narrative perspective and point of view, narrative ways of building “storyworlds”⁴¹, representations of consciousness and fictional minds

³⁸ See Reuven Tsur, *Toward a Theory of Cognitive Poetics*, North Holland, Amsterdam, 1992, and *The Poetic Mode of Speech Revisited. What Our Ear Tells Our Mind*, Keynote Lecture at the Symposium “Cognition and Poetics: Minding Language and Literature”, Osnabruck: 21-24 October 2010.

³⁹ Lisa Zunshine, *Cognitive Narratology*, in Zunshine (ed.), *Introduction to Cognitive Cultural Studies* cit., pp., 151-153, 151.

⁴⁰ David Herman, *Narrative Theory after the Second Cognitive Revolution*, in Zunshine (ed.), *Introduction to Cognitive Cultural Studies* cit., p. 155-175, 155.

⁴¹ According to Alan Palmer, «[s]toryworlds are possible worlds that are constructed by language through a performative force that is granted by cultural convention». See Palmer, *Storyworlds and Groups*, in Zunshine (ed.), *Introduction to Cognitive Cultural Studies* cit., pp. 176-192, 179.

(including theory of mind, on which more later), textual and cognitive factors underlying the key effects of narrative suspense, curiosity and surprise, and, more recently, studies on empathy and emotion.

Especially in its earlier stage, cognitive narratology applied notions from cognitive psychology and artificial intelligence – schemata, scripts, frames – to elucidate the cognitive processes through which readers negotiate narrative texts⁴². The work of early cognitive narratologists such as David Herman was mainly concerned with building and applying models of cognitive processing to the study of narrative. From this point of view the work of cognitive narratologists seems, at least initially, to be informed by a cognitivist, logical model of mind, rather than by embodied cognition, unlike other subfields in the cognitive turn.

An uneven relationship with theories of embodied cognition is likewise discernible in literary studies on theory of mind, one of the more productive lines of inquiry, which often falls under the rubric of cognitive narratology⁴³. Theory of mind (or, “mind reading”) is our cognitive proclivity to read others’ outward behaviour and body language in terms of inner, unobservable, mental or emotional states. This evolved cognitive adaptation, Lisa Zunshine argues, «makes literature as we know it possible» since «literature capitalizes on and stimulates Theory of Mind mechanisms that had evolved to deal with real people»⁴⁴. Zunshine leans heavily on the work of evolutionary psychologists Leda Cosmides and John Tooby to offer a fascinating account of our cognitive (and emotional) involvement with fictional characters and situations⁴⁵. However, by thus grounding the experience of reading (and the interaction with fictional minds) on our meta-representational cognitive proclivities, Zunshine’s and others’ readings «run

⁴² See Richardson, *Studies in Literature and Cognition* cit., p. 15.

⁴³ Lisa Zunshine, *Cognitive Narratology*, in Zunshine (ed.), *Introduction to Cognitive Cultural studies* cit., p. 152.

⁴⁴ Lisa Zunshine, *Theory of Mind and Experimental Representations of Fictional Consciousness*, in Zunshine (ed.), *Introduction to Cognitive Cultural Studies* cit., pp. 193-213, 198.

⁴⁵ See Lisa Zunshine, *Why We Read Fiction: Theory of Mind and the Novel*, Ohio State University Press, Columbus, 2006. A similar interest the cognitive bases of our involvement with literature is displayed by Blakey Vermeule, *Why Do We Care About Literary Characters*, The Johns Hopkins University Press, Baltimore, 2010.

the risk of reintroducing a backdoor Cartesianism to our understanding of literary texts, a separation of mind and body into distinct divisions and an implicit privileging of one over the other»⁴⁶. These accounts of the reader's involvement with literary characters and storyworlds seem, in sum, too cognitively mediated and inspired by a logical model of the mind that disregards current notions of embodied cognition.

On the other hand, cognitive narratologists and literary researchers on theory of mind also run the risk of being seen as mere corroborators, not adding anything new to literary criticism and merely offering a pseudo-scientific explanation of our interest in narrative, and nothing more. But it would be in turn reductive to see the work of these scholars as a mere scientific elucidation of the literary phenomenon. Sure enough, the focus on theory of mind emphasizes the role of cognitive universals (i.e. theory of mind capacities) that prompt us to «[narrativize], rightly or wrongly, the language of the body»⁴⁷. But this by no means excludes cultural specificity. If reading fictional minds exploits the same cognitive abilities we use to read minds in everyday life, «those abilities both shape and are shaped by sociocultural situations»⁴⁸. They are, that is, «the products of complex cultural and historical factors»⁴⁹, the study of which is the literary and cultural critic's job – a job many cognitive critics take quite seriously. Accordingly, literary critics working on theory of mind (or, more broadly, on fictional representations of consciousness) do not lose sight of their relevant historical period: variances on strategies of literary mind-reading or on representations of fictional minds are posited as functions of cultural, historical or social change. In this sense, cognitive approaches to narrative might appeal to literary historians and theorists by offering a new, «more radical materialism»⁵⁰ for the construction of subjectivity and meaning. A good example of

⁴⁶ Gallese and Wojciehowski, *How Stories Make Us Feel* cit.

⁴⁷ H. Porter Abbot, *Cognitive Literary Studies* cit., p. 718.

⁴⁸ David Herman, *Introduction*, in David Herman (ed.), *The Emergence of Mind. Representations of Consciousness in Narrative Discourse in English*, University of Nebraska Press, Lincoln, 2011, pp. 1-40, 21.

⁴⁹ H. Porter Abbot, *Cognitive Literary Studies* cit., p. 718.

⁵⁰ In Mary Thomas Crane's words. See Crane, *Shakespeare's Brain. Reading with Cognitive Theory*, Princeton University Press, Princeton and Oxford, 2000, p. 28.

this historicist approach is *The Emergence of Mind*, edited by narratologist David Herman in 2011, which offers a diachronic view of the changing representations of consciousness in British literature, from Old English to the 1950s. The contributions of some of the most prominent cognitive critics (including Elizabeth Hart, Lisa Zunshine, Nicholas Dames, and Alan Palmer), argues Herman, «cumulatively provide a basis for investigating the dividing line between “cognitive universals” (...) and variable, period-specific techniques for representing minds»⁵¹.

After an initial phase of relative “ahistoricism”, then, the cognitive analysis of narrative is increasingly participating in a broader, transversal interest in a cognitive materialism and historicism that began, roughly, in the first years of this century. Building on a variety of paradigms from the cognitive sciences, cognitive historicism investigates the permeability between literary discourses and discourses about the mind in earlier cultural productions, with the theoretical assumption that «culture is an on-going interplay [...] between human cognitive architecture and specific historical and cultural circumstances»⁵². The agenda of cognitive historicists is not to claim anachronistic anticipations of current views of human cognition in earlier scientific, literary and cultural productions. Rather, the application of current theories and notions «can open up new readings of an earlier era’s literary, philosophical, and scientific discourses on mind and language (...) because new interests, concepts, terms and methods bring with them new perspectives on the historical record»⁵³.

Mary Thomas Crane paved the way for the deployment of cognitive science to offer a new perspective on an author – Shakespeare – and his epoch. While Crane recognizes the recent «emphasis on the importance of the material body in the early modern period», she also laments that «the body and especially the brain of the author have been signally absent from such studies»⁵⁴. As an alternative, Crane proposes to pay attention to the

⁵¹ David Herman, *Introduction*, in Herman, *The Emergence of Mind* cit., p. 3.

⁵² Lisa Zunshine, *Cognitive Historicism*, in Zunshine (ed.), *Introduction to Cognitive Cultural studies* cit., p. 61-62.

⁵³ Richardson, *Studies in Literature and Cognition* cit., p. 23.

⁵⁴ Crane, *Shakespeare’s Brain* cit., p. 6.

brain, as «the material site where biology engages culture to produce the mind and its manifestation, the text» with the aim to find «traces of a particularly fertile collaboration between the two»⁵⁵. While she draws mainly on cognitive linguistics to find those traces of cognitive and ideological processes, her approach is clearly historicist, especially in her discussion of *Hamlet*. In turn, Alan Richardson has identified a number of “resonances” between Romantic-era and current neuroscientific developments that throw intriguing new light on works and themes of English Romanticism⁵⁶. Similarly, Nicholas Dames has argued for a strong influence of the emergence of 19th century materialist or physiological understanding of the mind/brain in Victorian literary representations of consciousness⁵⁷. The number of literary historians that are paying attention to this material or physiological body (brain and nerves included), combining historical research with the tenets of embodied cognition has been steadily increasing in the last few years, and outreaching beyond the boundaries of English literature, to which cognitive literary criticism had been largely confined⁵⁸.

This marked tendency toward an increasing historicist contextualization of literary relevant cognitive processes represents one of the recent and vigorous developments of the field, and seemingly indicates one of the directions to go in our cognitive road. As does the mounting interest in cognitive materialism and cultural theory, which, as hinted above, has yielded (and is yielding) a number of unexpected intersections, such as cognitive postcolonial theory, cognitive queer theory, cognitive disability studies, and

⁵⁵ *Ivi*, p. 35.

⁵⁶ See Alan Richardson, *British Romanticism and the Science of the Mind*, Cambridge University Press, Cambridge, 2001, and *The Neural Sublime. Cognitive Theories and Romantic Texts*. The Johns Hopkins University Press, Baltimore, 2010.

⁵⁷ See Nicholas Dames, *The Physiology of the Novel. Reading, Neural Science and the Form of Victorian Fiction*, Oxford University Press, Oxford, 2007, and *The Network of Nerves*, in David Herman (ed.) *The Emergence of Mind* cit., p. 215-239.

⁵⁸ To cite just one example, Justine Murison has explored how contemporary notions and discoveries about the nervous system shaped cultural and political representations in the United States during the central decades of the 19th century. (*The Politics of Anxiety in Nineteenth Century American Literature*. Cambridge University Press, Cambridge, 2011).

cognitive ecocriticism⁵⁹. These recent and promising new developments point to reformed or entirely new lanes of research, either fully functioning or in-the-making. However, in the remainder of this short guide, I would like to look at a different kind of development – one that, rather than with new lanes, has to do with the pavement of the existing road, as it were. I will therefore conclude this short primer with a reflection on the transversal and shifting concern of cognitive literary criticism with the notion of embodiment.

From its beginnings, the field of cognitive literary studies has shown a rather uneven engagement with the theories of embodied or situated cognition stemming from the “second cognitive revolution”. This is of course a logical consequence of the relational nature of a field that is defined by its dynamic relationships with such a dynamic discipline as current cognitive science. In part because of this rapid dynamicity, in part because of the wide gap dividing the hard sciences and the humanities, it is understandably hard for literary critics to keep up with the new discoveries that are continuously updating notions of human cognition. Precisely for this reason, it is crucial that we pay attention to the notions of cognition that critics are bringing to bear on literary analysis. If Vittorio Gallese and Hannah Wojciehowski lamented in 2011 that the lingering influence of classic cognitivism might be providing literary scholars with «a model of mind more “cognitive” and/or disembodied than it needs to be»⁶⁰, the situation might have changed in barely three years. Indeed, the less-cognitively mediated and more embodied approach to narratology (and not only) that Gallese and Wojciehowski (respectively, a neuroscientist and a literary critic) advocated seems to be under way. In part, this resurgence of embodiment de-

⁵⁹ Lisa Zunshine’s 2010 edited collection on Cognitive Cultural Studies includes essays on cognitive postcolonial theory, cognitive ecocriticism, cognitive deconstructionism and Neuroaesthetics (in addition to cognitive narratology and historicism). To gauge the potential of new intersections between theory and cognitive studies, one would just need to take a glance to the table of contents of the 2015 *Oxford Handbook of Cognitive Literary Studies* edited by Zunshine (cit.), that includes essays on cognitive postcolonial theory, cognitive queer studies, cognitive disability studies, neuroaesthetics, and empirical and qualitative studies of literature.

⁶⁰ Gallese and Wojciehowski, *How Stories Make Us Feel* cit.

rives from recent neuroscientific research, including the discovery of mirror neurons in macaque monkeys in the 1990s by Gallese and other members of the “Parma group”⁶¹. Although the existence of mirror neurons in humans remains controversial, recent studies posit the existence of complex sensorimotor networks in the brain that underpin our embodied simulation, a basic functional mechanism of our brain that enables a direct, bodily access to the actions, emotions and sensations of others⁶². The concept of embodied simulation is increasingly being applied to literature, inasmuch as it may provide an alternative (or, a complement) to approaches based on theory of mind (through the mechanism so-called “Feeling of Body”⁶³), by focusing on bodily and sensorimotor, rather than meta-representational, processes.

More in general, recent neuroscience research has reinvigorated earlier notions of embodied and embedded cognition, and in particular the “enactive approach” developed by Varela, Thompson and Rosch in the early 1990s. Cognition is not reduced to conceptual, higher-order processes located in the neocortex, but includes modal, lower-order perceptual processes that take place in different areas of the brain and, crucially, of our bodies. Accordingly, literary scholars are embracing a view of cognition that focuses on perception, action, emotion and affect. It follows a strong emphasis on sensory perception, which in the enactive view is «fully integrated with motor action»⁶⁴. Recent neuroscience and empirical research on perception, imagery, and on the processing of metaphorical and literal language opens up avenues for promising speculation on the embodied experience of reading, through embodied simulation. Besides, the focus on perception brought about by recent neuroscience has rekindled interest in ear-

⁶¹ For more on mirror neurons, See Giacomo Rizzolatti and Corrado Sinigaglia, *Mirrors in the Brain. How Our Minds Share Actions and Emotions*, Oxford UP, Oxford, New York, 2008. (Italian original, *So quell che fai. Il cervello che agisce e i neuroni specchio*, Raffaello Cortina Editore, Milano 2006.)

⁶² Gallese and Wojciewowski, *How Stories Make Us Feel* cit., note 19.

⁶³ *Ivi*, *passim*.

⁶⁴ Shaun Gallagher, *Philosophical Antecedents of Situated Cognition*, in Philip Robbins and Murat Aydede (eds.) *The Cambridge Handbook of Situated Cognition*, Cambridge University Press, Cambridge, 2008, pp. 35-51, p.38.

lier studies on our perceptual system, such as James J. Gibson's theory of affordances⁶⁵, that stress the inextricability of perceiving, thinking and acting⁶⁶. On the other hand, enactive approaches to embodied cognition negotiate the findings of the hard sciences with the rich phenomenology of human experience. Indeed, philosophers of mind have observed important connections between the innovative neuroscience of perception and the philosophical tradition of phenomenology⁶⁷, and many humanists and literary critics with an interest in the structure of consciousness are turning to Merleau-Ponty's *Phenomenology of Perception*, and to William James' "pragmatism"⁶⁸. While leaning on the most innovative neuroscientific findings and technologies, then, literary researchers on embodied/situated cognition do not disavow a rich philosophical tradition in the study of our embodied experience of the world⁶⁹.

The attention to lower-level perceptual processes fostered by recent neuroscience in embodied cognition has also yielded a vigorous line of research interested in the preconscious, pre-reflective aspects of consciousness, or the "cognitive unconscious". In this context, earlier work on cognitive poetics has been revived. David Miall, for example, has taken up Reuven Tsur's notion of "pre-categorical information" in his empirical studies of readers' response to literary texts, but also in his analysis of animistic aspects of Wordsworth's writings⁷⁰. Miall's and others' work represents an increasing interest in the capacity of literary language to elicit a flow of

⁶⁵ See James Jerome Gibson, *The Ecological Approach to Visual Perception*, Cornell University Press, Ithaca, 1979.

⁶⁶ Philosopher Alvar Noë has recently proposed an enactive theory of perception. See Noë, *Action in Perception*, MIT Press, Cambridge, 2004. For a review of theories of perception as action, see Raymond W. Gibbs, Jr, *Embodiment and Cognitive Science*, Cambridge University Press, Cambridge, 2005.

⁶⁷ Armstrong speaks of the "neurophenomenologists", *How Literature Plays with the Brain* cit., p. xii.

⁶⁸ In his work on a perceptual theory of emotion, Jesse Prinz observes that Damasio's "somatic" theory of emotion is deeply influenced by James'. See Prinz, *Gut Reactions. A Perceptual Theory of Emotion*, Oxford University Press, Oxford and New York, 2004.

⁶⁹ For an excellent review of this tradition, see Shaun Gallagher, *Philosophical Antecedents of Situated Cognition* cit.

⁷⁰ David Miall, *Wordsworth's "First-Born Affinities": Intimations of Embodied Cognition*, in "Poetics Today", 32(4), 2011, pp. 693-715.

“precategorical sensory information”, that engages the body (through the mirror neuron system) in «responses that are temporally prior to or at the border of consciousness»⁷¹.

Neuroscience research on perception and imagery has also bolstered the study of literary imagination, recasting the field formerly known as “cognitive aesthetics of reception”⁷² into the more fancy label of “Neuroaesthetics”. Elaine Scarry’s terrific *Dreaming by the Book* had provided an innovative study on literary vivacity, proposing that, by mimicking the structure of perception, «great sensory writers» instruct readers to produce particularly vivid mental imagery. Scarry’s notion of «mimesis of perception»⁷³ privileges perceptual processes, in keeping with recent trends, and her work has been the inspiration of many scholars with an interest in Neuroaesthetics. Gabrielle Starr, for example, openly cites Scarry in her recent, neuro-oriented inquiry into the aesthetic experience⁷⁴. While Scarry’s study focused on the visual, Starr, according to current research, calls into question the predominance of visual imagery in literary language, paying attention to different kinds of imagery (auditory, haptic, olfactory and gustatory, proprioceptive – i.e. related to the position of our bodies) and to multisensory imagery (intended both as the interplay of sensory modes invoked by a figure of speech, and to the cross-modal texture of a poem, passage or work)⁷⁵. In keeping with current research, Starr also places particular emphasis on motor imagery. Impressively conversant with neuroscience (she works in close collaboration with her colleagues in the neural science and brain imaging centers at NYU), Starr’s work is an excellent example of how brain-imaging technologies may enrich, rather than occlude, traditional forms of genuine literary analysis.

This renewed interest in enactive approaches to the embodied and embedded mind is, I would argue, spreading over every lane of the cognitive

⁷¹ *Ivi*, 701.

⁷² Richardson, *Studies in Literature and Cognition* cit., p. 17.

⁷³ Elaine Scarry, *Dreaming by the Book*, Farrar, Strauss, Giroux, New York, 1999, p. 28..

⁷⁴ Gabrielle Starr, *Feeling Beauty. The Neuroscience of Aesthetic Experience*, MIT Press, Cambridge (Massachusetts), 2013.

⁷⁵ Gabrielle Starr, *Multisensory Imagery*, in Lisa Zunshine (ed.), *Introduction to Cognitive Cultural Studies* cit., pp. 275-291.

road – even in the field in which the influence of classic cognitivist has been more deeply felt: cognitive narratology. Far from the application of “highly-cognitive” models, David Herman has more recently embraced an enactive approach to rethink the “inward turn” in modernist narratives⁷⁶. Modernist narratives, he argues, «can be both illuminated by and help illuminate postcognitive accounts of the mind as inextricably embedded in contexts for action and interaction»⁷⁷, and their «techniques for representing consciousness can be seen as an attempt to highlight how minds at one shape and are shaped by larger experiential environments, via the particular affordances or opportunities for action that those environments provide»⁷⁸. A similar drift toward a more embodied and enactive narratology can be seen in some of the essays included in a very recent edited collection on cognitive approaches to narrative⁷⁹. Leaning on Avar Noë’s enactive theory of perception, Marco Caracciolo foregrounds the reader’s subjectivity to analyze how «readers run embodied simulations of experiences they subsequently attribute to characters»⁸⁰. In turn, Anezka Kuzmicova highlights the “primordial” function of language, its «capacity to make absent phenomena present to the senses»⁸¹, as posited by anthropologist Robin Dunbar, to investigate the ways in which the «embodied mind of the reader [...] spontaneously responds to the sensorimotor qualities elicited by literary narrative»⁸². Although some of this criticism remains at a rather theoretical level (which would undoubtedly benefit from some more detailed readings of particular literary texts), the move toward a more embodied model of mind that privileges the sensorimotor and perceptual aspects of cognition is evident.

⁷⁶ David Herman, *Re-minding Modernism*, in Herman, *The Emergence of Mind* cit., p. 243-272.

⁷⁷ *Ivi*, p. 249.

⁷⁸ *Ivi*, pp. 249-50.

⁷⁹ Bernaerts, de Geest, Herman and Vervaeck (Eds.), *Stories and Minds* cit.

⁸⁰ Marco Caracciolo, *Blind Reading. Toward an Enactivist Theory of the Reader’s Imagination*, in *Stories and Minds* cit., pp. 81-105, 97.

⁸¹ Anezka Kuzmicova, *The Words and Worlds of Literary Narrative. The Trade-off between Verbal Presence and Direct Presence in the Activity of Reading*, in *Stories and Minds* cit., pp. 107-128, 108.

⁸² *Ivi*, p. 107.

4. *Have a Safe and Pleasant Trip*

In the preceding pages I have attempted a tentative outline of the cognitive road that aims to show that the cognitive turn does not necessarily have to be anxiety-engendering. Of course, careful driving is needed. There are many insidious dangers lurking beneath the appealing veneer of scientific empiricism. Besides, there are too many men at work – the road is still in the making – and the dashed lines dividing the many lanes of this wide road may make driving quite dizzying. But, all in all, cognitive drivers have proved pretty responsible drivers. After two to three decades of activity, the road seems comparatively ordered and solidly paved.

Although I have hinted at some of the possible forthcoming directions, the future still looks uncertain. It may be that the fuzzily divided lanes will gradually become more and more discrete, and that the cognitive road itself will declare its independence from the highroad of Humanities. More likely, as the history of precedent “turns” leads to believe, the cognitive turn will sooner or later merge onto the main road of literary criticism. Perhaps, the modifier “cognitive” will eventually wear off and be considered, precisely, as a stance. Perhaps, soon, literary and cultural critics will quite unaffectedly consider the materiality of the embodied mind in their analyses of the literary productions of the human mind. I think that development, too, is under way.

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