

(How) Can Recent Cognitive Studies Contribute to Literary Interpretation?

Angela Locatelli

University of Bergamo

Abstract

This essay wishes to engage with the crucial issue of the interpretation of literary texts from the specific perspective of the rise of Cognitive Sciences in the past two or three decades.

One of the stimulating, but also controversial elements of Cognitive Literary Studies is the variety of denominations of the field itself. Different labels have been adopted to define it, including: “Cognitive Poetics”, “Cognitive Semiotics”, “Cognitive Stylistics”, “Cognitive Literary Studies”, “Cognitive Criticism”, and “Cognitive Literary Science”.

A crucial problem that has variously been dealt with but that still remains open to discussion (and has sometimes promoted a questioning of the usefulness of the neurosciences in the interpretation of literary works), is the problem of the affordances of a cognitive approach to the specificity of literary artifacts. This contribution will therefore address and investigate this timely topic and illustrate aspects of the dynamics of literary interpretation that the cognitive sciences have recently productively developed.

In particular, it will focus on the following elements: various perspectives in “the neurohumanities”, “literariness and the brain”, “the respective contribution of the cognitive sciences and of literature to the knowledge of the human mind”.

Key words: *Neurohumanities, Literary and Cultural Cognitive Studies, Theory of Mind, Cognitive Poetics, Hermeneutic circle.*

Introduction

The issue of interpretation is something as old as literature itself, but precisely because of this, it is important to perceive the various ways in which it has been articulated according to different methodological and critical perspectives, in different epistemological contexts over the years.

This essay wishes to engage with a specific contemporary perspective which has emerged over the past two or three decades, as a consequence of the rise of the neurosciences and of their impact on the so called “Neurohumanities” and on Literary and Cultural Cognitive Studies. I wish to outline some of the fruitful convergences between these studies and literary theory, as well as some of the problems that are still object of debate, and in need of further research.

One of the crucial problems that still remains partly open to discussion, and that has sometimes promoted a questioning of the very usefulness of the cognitive sciences in literary studies, is the problem of the interpretation of artistic texts, as opposed to that of ordinary linguistic texts. In other words, cognitive scientists, who have satisfactorily dealt with human creativity, seem, with the due exceptions that I will discuss in the following pages, to have come relatively late to a treatment of the specific features of verbal art and they have not fully explained yet the distinction between the production and reception of a great literary masterpiece *versus* that of an ordinary or mediocre narrative.

Literary critics have extensively and brilliantly dealt with the challenges of hermeneutics for centuries. Some of their theories concern, in particular: the hermeneutic circle (Schleiermacher 1998), the role of the reader (Eco 1979), the various degree of indeterminacy or even indecidability of literary texts (Eco 1989), the interplay of what is said and what remains unsaid (Ricoeur 1965; 1977), the dynamic and dialogic nature of hermeneutics (Lecerle and Shusterman 2002; Alexandrov 2004). It is important to notice that similar concerns resonate with recent studies and findings in “Cognitive Stylistics” (Semino, Culpeper 2002), “Cognitive Poetics” (Tsur 1992; 2002; Stockwell 2007; Gavins 2003) “Cognitive Criticism” (Cave 2016; Burke and Troscianko 2017) as I hope to convincingly argue in the following pages.

Cognitive Scientists and Literary Theorists:

A Complex Liaison

One of the stimulating, but also controversial elements of Cognitive Literary Studies is the great variety of denominations and ramifications of the field itself. In her detailed critical overview of the discipline Ana Margarida Abrantes (2018) points out that different labels have been adopted for this area of study and that each of them has specific qualities that it is obviously impossible to satisfactorily examine or even outline in this essay, which is, in any case, concerned primarily with literary interpretation. So I will adopt a different approach, and instead of mapping the disciplinary territory of cultural and literary cognitive studies, I will focus on some of the most significant works of critics and scientists that have emerged since the 90s of the XX century.

The study of the mental processes and the ways in which linguistic information is elaborated in the neurophysiological system has been one of the central issues of the cognitive sciences in relation to literature. This aspect has been addressed experimentally by a growing number of cognitive scientists through various strategies of *neuroimaging*, including: PET (Positron Emission Tomography), fMRI (Functional Magnetic Resonance Imaging), optical thermal images, the discovery of the NGF (Nerve Growth Factor). This has allowed scientists to assess more accurately which areas in the brain are activated during verbal understanding and *a fortiori* during literary interpretation. Other areas of study focus on the correspondences between cognitive mechanisms and the features of literary texts, and on the ways in which literary information is processed according to human cognitive endowments.

The experimental approach has sometimes been accused of naive reductionism. In other words, excessive trust in the almost exclusive observation through neuroimaging has been questioned, first and foremost by literary scholars, and understandably so, because their experience and expertise in hermeneutics is grounded in a prevalently philosophical approach, rather than in an experimental methodology.

Some neuroscientists and several cognitive scientists seem to be aware of the limits of a purely experimental procedure towards the understanding of

human hermeneutic activity, and they have advocated a phenomenological approach to the study of brain processes in interpretation, and have welcomed suggestions from the humanities. Among them Semir Zeki (1999; 2009), founder of the Institute of Neuro-aesthetics at University College London, Francisco Gomez Mont Avalos Levy (2011), a neurologist, psychiatrist and founder of the Neurohumanities Research Centre in Tlalpan, Mexico, Vittorio Gallese (Stamenov 2002; Ammaniti & Gallese 2014), one of the members of the team of researchers at the University of Parma who discovered the workings of ‘mirror neurons’ and provided a psycho-physiological explanation for both human empathy and learning through imitation.¹ Their findings can valuably be applied in aesthetics to concepts such as “*imitatio*”, and “*mimesis*”.

Several scientists have gone as far as to suggest that: “*all areas of the humanities will contribute to (neuro) cognitive science* (Gomez and Vega 2011).

Francisco Gomez Mont has, more specifically, proposed that “*a primary purpose of literature is to represent the subjective quality of experience, inasmuch as mechanisms of evolutionary psychology are reflected in myths, dramas, tales, novels and poems. The discipline of evolutionary psychology, in conjunction with the neurohumanities must expand its historical sophistication and take into account the velocity of genomic changes and the plasticity and quick rewirability of neuronal circuits*” (Gomez and Vega 2011).

The fruitful collaboration between the sciences and the humanities advocated by Zeki, Gomez Mont, Gallese and others in the early years of the 21st century has, in fact, been further corroborated by studies on the brain’s neuroplasticity, and the discovery that culture, and literature as one of its specific domains, produces an incessant reorganization of jointly activated brain areas.²

The interfaces of cognition, culture, literature, and translation have also more recently been fruitfully explored by Peter Hanenberg (Hanenberg 2015; 2018). His concept of “intramental translation” as the human capacity to transform sensorial input(s) into meaning expands Roman Jakobson views of intralingual, interlingual and intersemiotic translations in a neurocognitive perspective. Hanenberg explains that the mental process of establishing

meaning from perceptual experience(s) consists in the fact that the brain adds to **perceptual input(s) a pre-existing (cultural) concept**, and this produces the **meaning** of the perceived object. Perception and conception are mutual processes that rely on cultural models or experiential memories to which new experiences are related.

The studies I have mentioned so far clearly indicate lines of possible future developments in the cognitive cultural disciplines.

The Experimental Study of Neurophysiological Responses to Language Comprehension, and Their Relation to Concepts of *literariness, foregrounding, and defamiliarization.*

A decisive contribution of the neurosciences to the dynamics of reading has come, as suggested above, from studies on how the brain processes linguistic information. Progress in this direction has come from the joint efforts of linguists, literary scholars and neuroscientists.

A very interesting contribution on the relationship between how the brain elaborates literary language and the seminal concept of “literariness” (*sensu* Roman Jakobson) has been proposed by Vladimir Alexandrov who convincingly defends “literariness” on the basis of experimental research carried out by cognitive scientists (Alexandrov 2003a; 2003b). Experimental data in support of “literariness” have been produced, among others (McGilchrist 2009; Waldie and Mosley 2000; Keller et al. 2001; Bottini 1994), by two Canadian researchers who work together, David Miall (a specialist on English literature) and Don Kuiken (a psychologist), (Miall and Kuiken 1994; 1998; 1999). Alexandrov refers to their studies and connects Jakobson’s notion of the metaphoric and metonymic poles of language to hemispheric specialisation in the brain. He writes:

“How do the hemispheres differ with regard to language processing?”

One difference appears to be how they process figurative language, such as metaphors, and related linguistic structures. A study using PET concluded that comprehension of metaphors, like that of sentences, involved “extensive activation” of several specific regions in the left hemisphere. But the comprehension of metaphors also activated a number of sites in the right

hemisphere. [...] Additional studies show that patients whose right hemispheres do not function normally “tend to prefer literal interpretations of phrasal metaphors and idioms; [...] they also fail to understand jokes because they cannot connect the premise to the punch line, and have difficulty “appreciating metaphors, idioms and indirect requests”. (Alexandrov 2003a:48-49)

His contribution lucidly highlights the respective roles of the left and right hemispheres when we elaborate complex linguistic utterances (and literature is, of course a complex text *par excellence*). Alexandrov develops his richly documented argument in Volume II and in Volume IV of *La conoscenza della letteratura / The Knowledge of Literature*: and he concludes as follows (Alexandrov 2003b: 23-24.):

“...the studies in question indicate that the left hemisphere is the locus of sequential, syntactically and grammatically organized linguistic meaning. Its lexicon is characterized by semantic fields based on proximal, hierarchical, logical, or metonymic relations. When making sense of language, the left hemisphere suppresses ancillary or secondary meanings of words. [...] By contrast, semantic fields in the right hemisphere are restricted in number and are characterized by a looser or coarser semantic focus. Via metaphoric linkages, the right hemisphere can construct meanings from distal words that may otherwise seem unrelated to each other in the given language [...]. These broad generalisations are noteworthy because they appear directly to echo Jakobson’s ideas about two poles of language about which he wrote in his classic paper “Two Aspects of Language and Two Types of Aphasic Disturbances”. (1956) (Jakobson 1990a, 1990b)

Miall and Kuiken’s theories and experiments are discussed by Alexandrov also because they confirm the convergence of the experimental neurosciences and the philosophical and linguistic theories developed by Czech Structuralist Jan Mukařovský (1964) and the Russian Formalist Viktor Šklovskij (1976). I wish to point out that the concept of “foregrounding” (or *aktualisace* in the original Czech), and the concept of “defamiliarization” (*Ostranienie* in the original Russian) refer to both the specific features of artistic discourse and to its

surprising cognitive effects. “Foregrounding” refers to the stylistic features of literary texts at the phonetic level (e.g., alliteration), the grammatical level (e.g., inversion, ellipsis), or the semantic level (e.g., metaphor, irony).³ Literary Theory and experimental data converge and demonstrate that the defamiliarization effect of literature depends on foregrounding as a specific cognitive experience related to artistic form. We can find an interesting analogy with Miall and Kuiken’s interest in “defamiliarization” and Romantic views of poetry. Samuel Taylor Coleridge and Percy Bysshe Shelley are actually mentioned in their studies, undoubtedly because they had already extensively talked about “defamiliarization” in their philosophical and aesthetic defenses of poetry, suggesting that poetry takes the veil of habit off our eyes (Coleridge, <<http://www.public-library.uk/ebooks/14/98.pdf>>; Shelley 1909).

***Theory of Mind*(ToM) and Metarepresentationality:**

The Impact of Some Human Cognitive Endowments on the Experience of Reading Fiction

A significant way in which narrative fiction has been related to the cognitive sciences is what is generally called “Theory of Mind”. Lisa Zunshine’s book “*Why We Read Fiction: Theory of Mind and the Novel* (2006) combines the findings of evolutionary psychology and recent studies on autism with a specific attention to literary texts. Among others she deals with Virginia Woolf, Dorothy Richardson, Henry James, and Nabokov and with the genre of the detective novel. The value of fiction – Zunshine convincingly argues – lies in the power of novels to develop a vital human faculty: i.e. the ability to read the mind of others. The ‘normal’ and evolutionary cognitive ability to explain the behaviour of others in terms of the underlying states of mind originated, as evolutionary psychology tells us, during a massive neurocognitive revolution which took place almost 10,000 years ago during the Pleistocene and that gave humans a unique advancement in the knowledge of their social environment. Zunshine elaborates two important concepts from cognitive studies and applies them to literary studies:

1) The “mind reading” capacity, also known as “Theory of Mind” (ToM), which involves inferring the thoughts, feelings, beliefs, and desires of others from their observable behaviour.

and

2) the concept of “metarepresentationality”, i.e. the cognitive faculty that allows us to: “keep track of sources of our representations”.

This means that:

*“the attribution of mental states to literary characters is crucially mediated by the workings of our metarepresentational ability. Fictional narratives, from Beowulf, to Pride and Prejudice, rely on, manipulate, and titillate our tendency to **keep track of who thought, wanted, and felt what and when**”.* (Zunshine 2006:5)

What is significant for our focus on the interpretation of literary texts is that this process rests on our cognitive ability, and the ensuing pleasure, to infer or make conjectures as to the characters’ motives, intentions and purposes. What are, for example, Ulysses goals in his peregrinations? What are Iago’s motives in pushing Othello to murder and self-destruction, through crafty rhetoric? What forces and complex emotions drive Anna Karenina to kill herself?⁴ These conjectures are one of the significant elements in our enjoyment of novels.

Let me add that, in making such conjectures, there is always the possibility of misconstruing the characters’ states of mind and emotions, particularly in the case of texts that are temporally or culturally distant from the reader(s)’ knowledge and cultural “mind sets”, or in the case of texts that require an active intervention on the part of readers to supply missing information or to judge the reliability of narrators. Moreover, misinterpretation, or a plurality of different interpretations of the characters’ fictional mental states largely depend on the assumptions and different frames of reference that different readers or literary critics, as well as cognitive scientists, bring to the texts. The oscillations between interpretation and overinterpretation (Eco et al. 1992) are undoubtedly part of the daily experience of both common or critical readers. I wish therefore to point out that literary interpretation may include, but it certainly extends

beyond what ‘Theory of Mind’ can tell us about characters, since the global meaning of a work of verbal art is much more complex than what is grasped or intuited at the level of character (Locatelli 2009). The high structural complexity of plays, poems and novels, particularly of what we call “great literature” is related to several critical elements that transcend personal everyday experience and that include historical conjunctures, genre conventions, temporal and spatial categories, networks of rhetorical figures, formal devices such as plots and subplots, different kinds of argumentation, the aesthetics and poetics of different ages and literary movements or schools, the authorial intention, as well as the important distinction between the empirical author and the lyrical or narrative voice. We have reliable and unreliable narrators, and above all we experience literature as a special kind of discourse in which more than one thing can be said at once, and even contradictory things can be said at once. William Empson’s seminal concept of “ambiguity” (Empson 1947), and Michail Bakhtin’s fundamental idea of “heteroglossia” (Bakhtin 1981; 1990; 1993; 1994) eloquently warn us against interpretative reductionism. This is undoubtedly one of the aspects that make a purely “Theory of Mind” approach to reading, however rigorous, somehow narrow. Even if, in Alan Palmer’s words, “We all think of novels in terms of the mental functioning of characters,⁵ Lisa Zunshine herself is aware of this problem of reductionism and, in order to avoid it, she profitably integrates contributions of the cognitive sciences and mind reading (ToM) with those of narratology (Hogan 2010a; Hogan 2010b) phenomenology (Zunshine 2010b; Easterlin 2010) and cultural historicism (Zunshine 2010c) in the book she edited in 2010, *Introduction to Cognitive Cultural Studies* (Zunshine 2010a). Chapter Seven in this volume talks about nothing less than a “Second Cognitive Revolution” with the rise of “discursive psychology”. David Herman explains that:

*“The first cognitive revolution marked a shift away from behaviorism to the study of cognition, postulating that “there are mental processes ‘behind’ what people say and do.[...] In contrast, although the second cognitive revolution also accepts the idea that there are **cognitive processes**, it views them as **immanent in discourse practices**. From this perspective **the mind does not***

preexist discourse, but is ongoingly accomplished in and through its production and interpretation". (Herman 2010:156)

This seems indeed a very interesting *rapprochement* between linguistic theory and cognitive science, at the level of language, literature and human cognitive affordances.

The 'Resistant' Reading of Literature and the Pleasure of Cognitive Displacement

Neuroscientists who, since the early days of the discipline have been, and still are, interested in the study of emotions, are likely to find in the poets and literary critics ample material related to human consciousness. I am primarily, but by no means exclusively, referring to the so called "stream of consciousness novel" and its close connections to psychoanalysis and Jamesian psychology, but I also wish to recall the above mentioned Romantic poetry and poetics with its emphasis on literature's power of "defamiliarization".

Reuven Tsur (1992), a brilliant cognitive literary critic, has proposed that literary fictions produce an effect of pleasure because they provide a particular awareness of our cognitive functioning, and has suggested that they do so by breaking up or deferring our ordinary cognitive processes. One significant example is provided by Tsur's discussion of our interpretation of jokes (Tsur 1992). Jokes, he suggests, go against the grain of our "mental sets", i.e. they provoke a shift in the ordinary and common response to certain utterances. If mental sets are obviously valuable adaptive mechanisms that save mental energy, their disruption demonstrates that our cognitive abilities can go beyond automatic responses, and enable us to cope with changing and unpredictable situations.

In relation to Tsur's studies I wish to recall that Baroque poetry and aesthetics was grounded in the specific emotion of "wonder", and in the poet's capacity to evoke the emotion of cognitive amazement in the reader and viewer's experience. The Baroque aesthetic sense of "wonder" is, in my opinion, something closely related Tsur's idea of "cognitive displacement".

What he suggests seems to me very relevant for literary studies and interpretation, in general. In fact, I believe that his explanation of our cognitive displacement holds true for the difficulty we experience in reading complex literary texts, which often require us to pause, to register unusual formal features, to re-assess the (more or less) partial meanings we have grasped up to a certain moment, and to move beyond (Locatelli 2005). Literary artistic texts seem to resist a linear and immediate understanding, but require instead cognitive operations that allow us to gradually unfold a plurality of meanings. This ongoing re-assessment is dependent on the quintessentially aesthetic dimension of artistic texts, as I have repeatedly argued elsewhere (Locatelli 2011; 2007). Literary texts cannot be “swallowed whole”, so to speak, but must be “tasted” slowly and in depth. Because of this I find Reuven Tsur’s work on “cognitive poetics” (Tsur 1992) highly convincing and a very interesting contribution to the solution of the crucial problem of addressing the specificity of literary works, *versus* ordinary verbal texts.

The act of reading novels and poems requires close attention to different aspects of the literary works: from the level of phonemes and lexical units, to the use of rhetorical figures, from the level of narrative strategies of emplotment to intertextuality, from genre codification to aesthetic and ethical value (Locatelli 2014; 2015). Moreover, I believe that the use of ordinary language in artistic literature is always a variation, along a gradient that goes from the ordinary to the strange. Literary language is an innovative variation on the ordinary norms of language use, at lexical, syntactical, cognitive, aesthetic levels. Significant variations in literature occur at micro and macro levels, and of course all of these levels must be examined in literary interpretation, as suggested by Seda Gasparyan’s recent writings (Gasparyan 2019; 2018).

“As research indicates, the initial important condition of text understanding is the knowledge of the given language. However, language competence can by no means be sufficient for full understanding and interpretation of the text. Here, the extra-linguistic knowledge and experience that are manifested in the text content and linguistic composition in one way or another are of particular significance”. (Gasparyan 2018:12-13)

I agree with Gasparyan when she proposes that literary interpretation is grounded in linguistic competence and a special interaction between writer and reader, and she also suggests that this competence extends beyond this, to cultural, historical, critical knowledge on the part of both author and reader.

My exploration of what cognitive science can contribute to literary hermeneutics wishes therefore to highlight also Paul B. Armstrong's *How Literature Plays with the Brain: The Neuroscience of Reading and Art* (Armstrong 2013). Armstrong's very promising approach is decidedly phenomenological, and at the same time it is based on neurological evidence. What I find most appealing is his focus on the aesthetic experience of both visual forms and words and, in particular, his refreshing focus on the "hermeneutic circle" in a cognitive science perspective.

The "hermeneutic circle" is a seminal concept in literary theory proposed, among others, by Friedrich Schleiermacher (1998) and Paul Ricoeur (1965, 1970, 1977).

Armstrong refers to the importance of this concept in cognitive terms when he writes:

"The hermeneutic circle – the paradox whereby an understanding of the parts of a text depends on an anticipatory sense of the whole to which they belong – turns out to have deep foundations in the cognitive functioning of the brain. Similarly [...] there is extensive neurological evidence about how the brain interprets shapes and words that is consistent with the phenomenological view of reading as a process of filling in textual indeterminacies and building consistent patterns, a process open to opposing results (so that readers may disagree about what a text means). Neurological research on the brain's response to ambiguous figures and the possibility of multiple interpretations is consonant with phenomenological theories of multiple meaning and conflicting readings". (Armstrong 2013:21)

Paul Armstrong suggests that literature is a powerful stimulus to brain activity, a force that produces a uniquely cognitive experience of ongoing conflicts and negotiations in our understanding. Negotiations occur between the human need for patterns, cohesion, regularity in both texts and the external

world, *versus* the need of variation, innovation, instability, and a sense of perpetual change. These productive tensions constitute the “play” in Armstrong’s title “How Literature Plays with the Brain: The Neuroscience of Reading and Art”.

Conclusion

I wish to conclude my investigation on the contributions of the cognitive sciences to literary interpretation by referring to a recent work resulting from the joint efforts of neuroscientists and literary critics, a work that, in this sense, has strong affinities with what I have suggested in my discussion. Vera Nuenning’s *Reading Fictions, Changing Minds. The Cognitive Value of Fiction* (Nuenning 2014) uniquely defends the value of literature in a cognitive and emotional perspective. Nuenning writes:

“When reading Fiction, we remain an – albeit anything but passive – observer; for hours at a stretch, readers’ or viewers’ empathic reactions are allowed to continue without any disturbance from the outside. Such an extensive and intensive practice of emphatic feelings, if engaged in regularly, can leave physiological traces and predispose readers to similar feelings in everyday situations”. (Nuenning 2014:102)

This is a very interesting and productive reinterpretation of the above mentioned neuroscientific idea of the “brain’s neuroplasticity”, and confirms literature’s power to cultivate empathy and increase our cognitive and social competences, through the special activity of interpretation that it promotes and sustains. The wonders of literature and its cognitive displacements are a vast domain to be both appreciated and further investigated.

Notes:

1. For their discovery of the ‘mirror neurons’ Giacomo Rizzolatti, Vittorio Gallese and Leonardo Fogassi received the the Grawemeyer Award for Psychology, in 2007. Rizzolatti, Giacomo R.
2. “The neuronal architecture of an adult human brain is sculpted by language, visual milieu, music, gastronomy, tactile, olfactory, sensory

- stimuli and attitudes towards the useful, the aesthetic, the erotic and the sacred". See Francisco Gomez Mont Avalos Levy, and Joseline Vega Osornio "Neuroliterature: Imagining and Imaging the Brain in the NeuroHumanities" in *La Conoscenza della letteratura/The Knowledge of Literature*, Vol.X, Angela Locatelli ed., Bergamo: Bergamo University Press/Edizioni Sestante, 2011, p. 51.
3. Miall and Kuiken refer directly to Mukařovský's essay "Standard Language and Poetic Language", to explain that: "foregrounding may occur in normal, everyday language, such as spoken discourse or journalistic prose, but it occurs sporadically without systematic design. In literary texts, on the other hand, foregrounding is structured: it tends to be both systematic and hierarchical". See V. Alexandrov, "Literariness Revisited", op. cit., 2005 p.26.
 4. Zunshine suggests that: *"The very process of making sense of what we read appears to be grounded in our ability to invest the flimsy verbal constructions that we generously call "characters" with a potential for a variety of thoughts, feelings and desires and then to look for 'cues' that would allow us to guess at their feelings and thus predict their actions. Literature pervasively capitalizes and stimulates Theory of Mind mechanisms that had evolved to deal with real people, even if on some level readers do remain aware that fictive characters are not real people at all."* (p.10 Zunshine, op.cit. emphasis mine).
 5. This is what Alan Palmer suggests in his "Storyworlds and Groups", in Liza Zunshine (ed.), *Introduction to Cognitive Cultural Studies*, Baltimore, Johns Hopkins, 2010, pp.176-192.

References:

1. Abrantes, A.M. (2018) *Setting Goals, Finding Gains, Bridging Gaps. Criticism of Cognitive Literary Studies.* / Paper presented at the Cognitive Futures in the Arts and Humanities 2018 Conference, University of Kent, UK, 1-4 July.

2. Alexandrov, V. (2003a) *Neuroscience and Literariness*. // La Conoscenza della letteratura/The Knowledge of Literature, Vol.II. / Ed. by A. Locatelli. Bergamo: Bergamo University Press/Edizioni Sestante, pp.41-62.
3. Alexandrov, V. (2003b) "*Literariness*" Revisited. // La Conoscenza della letteratura/The Knowledge of Literature, Vol.IV. / Ed. by A. Locatelli. Bergamo: Bergamo University Press/Edizioni Sestante, pp.21-38;
4. Alexandrov, V. (2004) *Limits to Interpretation: The Meanings of Anna Karenina*, Madison: University of Wisconsin Press.
5. Ammaniti, M. & Gallese, V. (2014) *The Birth of Intersubjectivity. Psychodynamics, Neurobiology and the Self*. New York: W.W. Norton & Company.
6. Armstrong, P.B. (2013) *How Literature Plays with the Brain: The Neuroscience of Reading and Art*. Baltimore: The Johns Hopkins UP.
7. Bakhtin, M. (1981) *The Dialogic Imagination: Four Essays*. / Ed. by M. Holquist, Austin: University of Texas Press.
8. Bakhtin, M. (1990) *Creation of a Prosaics*. / Ed. by G.S. Morson & C. Emerson. California, Stanford: Stanford University Press.
9. Bakhtin, M. (1993) *Speech Genres, and other Late Essays*. / Ed. by C. Emerson and M. Holquist. Austin: University of Texas Press.
10. Bakhtin, M. (1994) *The Bakhtin Reader*. / Ed. by M. Pam. Oxford: OUP.
11. Bottini, G. et al. (1994) *The Role of the Right Hemisphere in the Interpretation of Figurative Aspects of Language – A Positron Emission Tomography Activation Study*." *Brain* 117, Part 6 (Dec 1994): 1241-1253.
12. Burke, M. and Troscianko, E.T. (2017) *Cognitive Literary Science. Dialogues Between Literature and Cognition*. Oxford: OUP.
13. Cave, T. (2016) *Thinking with Literature. Towards a Cognitive Criticism*. Oxford: OUP.
14. Coleridge, S.T. *Biographia Literaria*. Available at: <<http://www.public-library.uk/ebooks/14/98.pdf>> [Accessed September 2019].
15. Easterlin, N. (2010) *Cognitive Ecocriticism: Human Wayfinding, Sociality, and Literary Interpretation*. // *Introduction to Cognitive Cultural Studies*. / Ed. by L. Zunshine. Baltimore: Johns Hopkins, pp.257-274.
16. Eco, U. (1979) *Lector in Fabula*. // Studi Bompiani, N 22. Milano: Bompiani.

17. Eco, U. (1962 and 1976) *Opera aperta*. Milano: Bompiani. English transl. (1989) *The Open Work*. Cambridge: Harvard University Press.
18. Eco, U.; Rorty, R.; Culler, J. and Brooke-Rose, Ch. (1992) *Interpretation and Overinterpretation*. Cambridge: CUP.
19. Empson, W. (1947), [1930] *Seven Types of Ambiguity*, New York: New Directions.
20. Gasparian, S. (2019) *A Methodological Mechanism for Applying the Hermeneutical Approach*. // *Armenian Folia Anglistika*, 1 (19). Yerevan: YSU, pp. 9-29.
21. Gasparian, S. (2018) *Concerning the Program of Understanding a Literary Text*. // *Armenian Folia Anglistika*, 1-2 (18). Yerevan: YSU, pp. 7-18.
22. Gavins, J. (2003) *Cognitive Poetics in Practice*. London: Routledge.
23. Gomez, M.A.L.F., and Vega, O.J. (2011) *Neuroliterature: Imagining and Imaging the Brain in the NeuroHumanities*. // *La Conoscenza della letteratura/The Knowledge of Literature*. Vol. X. / Ed. by A. Locatelli. Bergamo: Bergamo University Press/Edizioni Sestante, pp.49-64.
24. Hanenberg, P. (ed.) (2015) *A New Visibility: On Culture, Translation and Cognition*. Lisboa: Universidade Católica Editora.
25. Hanenberg, P. (2018) *Intramental Translation. How Culture Shapes the Mind or Why Columbus Did Not Discover America*. // *La circolazione dei saperi in Occidente. Teoria e prassi della traduzione letteraria*. / Ed. by F. Scotto and M. Dossena. Milano: Cisalpino, pp.1-26.
26. Herman, D. (2010) *Narrative Theory after the Second Cognitive Revolution*. // Ed. by L. Zunshine, *Introduction to Cognitive Cultural Studies*. Baltimore: Johns Hopkins, pp.155-175.
27. Hogan, P.C. (2010a) *Literary Universals*. // *Introduction to Cognitive Cultural Studies*. / Ed. by L. Zunshine. Baltimore: Johns Hopkins, pp.37-60.
28. Hogan, P.C. (2010b) *On Being Moved: Cognition and Emotion in Literature and Film*. / Ed. by L. Zunshine. *Introduction to Cognitive Cultural Studies*. Baltimore, J. Hopkins, pp.237-256.
29. Iser, W. (1974) *The Implied Reader*. Baltimore: The Johns Hopkins University Press.

30. Jakobson, R. (1990a) *Two Aspects of Language and Two Types of Aphasic Disturbances*. // (1956) *On Language*. / Ed. by L.R. Waugh and M. Monville-Burston. Cambridge: Harvard University Press, pp.115-3.
31. Jakobson, R. (1990b) *Linguistics and Poetics* (1960); partially reprinted as *The Speech Event and the Functions of Language* in Jakobson R. *On Language*. / Ed. by Waugh L.R et al.. Cambridge: Harvard University Press, pp. 69-79.
32. Keller, T.A., et al. (2011) *The Neural Bases of Sentence Comprehension: a fMRI Examination of Syntactic and Lexical Processing*. // *Cerebral Cortex* 11 (March 2001): 223-37.
33. Lecercle, J. and Shusterman, R. (2002) *L'Emprise des signes. Débat sur l'expérience littéraire*. Paris: Seuil.
34. Locatelli A. (2005) *'It hath no bottom: and I will sing it': Literature as Endless Hypersign of Revelation and Concealment*" // *Saukoanaritkaru Eibungaku Ronso, Psychoanalytical Study of English and Literature*, Tokyo, n. 25, pp. 1-12;
35. Locatelli, A. (2007) *The Ecology of Wonderland: Textual, Critical and Institutional Perspectives in Literature*. // *Literary Landscapes, Landscapes in Literature*. / Ed. by M. Bottalico, M.T. Chialant, E. Rao. Roma: Carocci Editore, pp.46-53;
36. Locatelli, A. (2009) *The Ethical Use(s) of Literary Complexity*. // *Values in Literature and the Value of Literature: Literature as a Medium for Representing, Disseminating and Constructing Norms and Values*. / Ed. by S. Baumbach, H. Grabes and A. Nünning. Trier: Wissenschaftlicher Verlag Trier, pp.67-76;
37. Locatelli, A. (2011) *The Knowledge of Literature or the Special Effects of Literary Discourse*. *Armenian Folia Anglistika*, 2(9). Yerevan: YSU.
38. Locatelli, A. (2014) *Reading Literature: An Ethical Gesture in the Postmodern Context?* // *Armenian Folia Anglistika*, 1(12). Yerevan. YSU, pp.121-130.
39. Locatelli, A. (2015) *The Moral and the Fable: A Fluid Relationship in Artistic Literature*. // *Values of Literature*. / Ed. by H. Meretoja, S. Isomaa, P. Lyytikäinen, K. Malmio. Leiden/Boston: Brill Rodopi, pp.47-62.

40. McGilchrist, I. (2009) *The Master and His Emissary*. New Haven: Yale U.P.
41. Miall, D.S. and Kuiken, D. (1994) *Foregrounding, Defamiliarization, and Affect: Response to Literary Stories*. // *Poetics*. Vol. 22, pp.389-407;
42. Miall, D.S. and Kuiken, D. (1998) *The Form of Reading: Empirical Studies of Literariness*. // *Poetics*. Vol. 25, pp.327-41;
43. Miall, D.S. and Kuiken, D. (1999) *What Is Literariness? Three Components of Literary Reading*. // *Discourse Processing*. Vol. 28 (2), (1999), pp.121-38.
44. Mueller-Vollmer, K. (ed) (1989) *The Hermeneutics Reader*. New York: Continuum.
45. Mukařovský, J. (1964) *Standard Language and Poetic Language*. // *A Prague School Reader on Esthetics, Literary Structure, and Style*. / Ed. and tr. by P.L. Garvin, Washington, D.C.: Georgetown University Press, pp.17-30.
46. Nuenning, V. (2014) *Reading Fictions, Changing Minds. The Cognitive Value of Fiction*, Winter, Heidelberg: Heidelberg Universitätsverlag.
47. Palmer, A. (2010) *Storyworlds and Groups*. // *Introduction to Cognitive Cultural Studies*. / Ed. by L. Zunshine. Baltimore: J. Hopkins, pp.176-192.
48. Ricoeur, P. (1965) *De l'interprétation: Essai sur Freud*. Paris, Seuil.
49. Ricoeur, P. (1970) *Freud and Philosophy: An Essay on Interpretation*. New Haven–London: Yale University Press.
50. Ricoeur, P. (1977) *The Rule of Metaphor: Multi-Disciplinary Studies in the Creation of Meaning*. Toronto: University of Toronto Press.
51. Rizzolatti, G.R. et. al. (2008) *Mirrors in the Brain: How Our Minds Share Actions, Emotions, and Experience*. New York: OUP.
52. Schleiermacher, Fr.D.E. [1838] (1998) *Hermeneutics and Criticism*. / Ed. by A. Bowie. Cambridge: CUP.
53. Semino, E. and Culpeper, J. (2002) *Cognitive Stylistics: Language and Cognition in Text Analysis*. Amsterdam: Benjamins.
54. Shelley, P.B. (1909) *A Defence of Poetry*, in *English Essays: Sidney to Macaulay*. // *The Harvard Classics*. 1909–14. Available at: <<https://resources.saylor.org/www.resources/archived/site/wp-content/uploads/2011/01/A-Defense-of-Poetry.pdf>> [Accessed September 2019].
55. Šklovskij Victor, *O teorii prozy*, [Moskva 1925]. Italian Translation: Cesare G. de Michelis e Renzo Oliva, *Teoria della Prosa*, Torino, Einaudi 1976.

56. Stamenov, N.I., and Gallese, V. (2002). *Mirror Neurons and the Evolution of Brain and Language*. Amsterdam, John Benjamins Publishing Co.
57. Stockwell, P. (2007) *Cognitive Poetics: An Introduction*. London: Routledge.
58. Tsur, R. (1992) *Toward a Theory of Cognitive Poetics*. Amsterdam: Elsevier.
59. Tsur, R. (2002) *Aspects of Cognitive Poetics*. // Neuro Humanities Studies. / Ed. by E. Semino, and J. Culpeper, pp.279-318.
60. Waldie, K.E. and Mosley, J.L. (2000) *Hemispheric Specialisation for Reading*. // Brain and Language, 75, pp. 108-22.
61. Zeki, S. et. al. (2004) *The Neural Correlates of Maternal and Romantic Love*. // NeuroImage, 21, pp.1155-1166.
62. Zeki, S. (1999) *Inner Vision: An Exploration of Art and Brain*. Oxford: OUP.
63. Zeki, S. (2009) *Splendors and Miseries of the Brain: Love, Creativity, and the Quest for Human Happiness*. Oxford: Wiley-Blackwell.
64. Zunshine, L. (2006) *Why We Read Fiction: Theory of Mind and the Novel*. Columbus: The Ohio State University Press.
65. Zunshine, L. (ed.) (2010a) *Introduction to Cognitive Cultural Studies*. Baltimore: Johns Hopkins.
66. Zunshine, L. (2010b) *Theory of Mind and Experimental Representations of Fictional Consciousness*. / Ed. by L. Zunshine. // Introduction to Cognitive Cultural Studies. Baltimore: Johns Hopkins, pp.193-213.
67. Zunshine, L. (2010c) *Lying Bodies of the Enlightenment: Theory of Mind and Cultural Historicism*. / Ed. by L. Zunshine. // Introduction to Cognitive Cultural Studies. Baltimore: Johns Hopkins, pp.115-133.

**Կարո՞ղ են արդյոք ժամանակակից ճանաչողական
ուսումնասիրությունները նպաստել գրական
ստեղծագործությունների մեկնաբանությանը**

Սույն հոդվածի նպատակն է ներկայացնել վերջին երկու կամ երեք տասնամյակներում գրական տեքստերի մեկնաբանության հարցը ճանաչողական գիտությունների ուրույն տեսանկյունից:

Ճանաչողական գրականագիտության ամենահետաքրքիր, բայց նաև հակասական տարրերից է այս ոլորտի անվանման բազմազանությունը: Այն կոչվել է ամենատարբեր անուններով – ճանաչողական պոետիկա, ճանաչողական սեմիոտիկա, ճանաչողական ոճագիտություն, ճանաչողական գրականագիտություն, ճանաչողական քննադատություն և այլն: Առանցքային խնդիրը, որին բազմաթիվ անգամ անդրադարձ է արվել, բայց որը դեռևս շարունակում է քննարկվել, ճանաչողական գիտությունների կիրառելիությունն է գրական հուշարձանների մեկնաբանության բնագավառում: Ուստի, սույն աշխատանքով փորձ է արվում ուսումնասիրել այս արդիական խնդիրը և ներկայացնել գրական մեկնաբանության դինամիկայի այն առանձնահատկությունները, որոնք ճանաչողական գիտությունների ուշադրության կենտրոնում են:

Հոդվածը մասնավորապես կենտրոնանում է ուղեղի գործունեության և գեղարվեստականության կապի հարցերին, ինչպես նաև այն հնարավոր ներդրումներին, որ նյարդահոգեբանությունն ու ճանաչողաբանությունը կարող են ունենալ գրական երկերի մեկնաբանության բնագավառում:

Received by the Editorial Board 26.09.2019

Recommended for publication by the reviewers 29.11.2019

Accepted for print 02.02.2020