

# Cognitive Foundations of Ethical Literary Studies<sup>1</sup>

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## Abstract

In the 1980s and 1990s, an ethical turn began to take place in literary studies and in the humanities in general, leading to an increased interest in exploring the relationship between literature and ethics. The field that deals with this topic is now called ethical literary studies or ethical criticism. One of the less explored areas of ethical literary studies is the relationship between ethics and cognitive aspects of reading. In this article, I therefore analyse the neurobiological foundations of literary reading. I consider reading as a technology consisting of various embodied mental, emotional, motor, sensory, memory and other cognitive processes. The temporal and spatial dimension of the processes, which I also call “openness”, is particularly important. The latter conditions the diversity of reading on an experiential level and, finally, the possibilities of the relationship between literature and ethics, namely in relation to literary characters, narratives, implicit and real authors and readers.

**Keywords:** cognitive literary studies, literary reading, diversity, ethical judgement, aesthetic judgement

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## INTRODUCTION

In the 1980s and 1990s, literary studies, like the humanities in general, experienced the so-called “ethical turn”, by which, as Tomo Virk says, we mean a period when the study of the relationship between literature and ethics was in vogue, while the real problem is much broader and deeper, not only in time but also in disciplinary terms. We cannot talk about the terminology we use when we talk about ethics and literature without using a specific philosophical background (Aristotle, Immanuel Kant, Emanuel Levinas, etc.; in Slovenia Anton Stres, Tine Hribar, Borut Ošljaj, etc.). At the same time, thematization in the broadest sense of the ethical in relation to literature can be traced back at least to Plato (his rejection of the existence of poets/poetry in the ideal state because of their corrupting influence on the young), not to mention the pedagogical use of literature as a moral model, which is as old as literature itself.

These are all important questions and dilemmas that literary scholars have grappled with both theoretically and historically. My current reflections are only a small, peripheral part of this “skein” (Virk 16), which, however, I believe, opens up a hitherto little explored area of ethical literary studies, namely the relationship between cognitive aspects of literary reading, ethics and morality. Although I am not concerned with terminological issues, now that we have the framework of the present considerations in mind, it is nevertheless necessary to mention (and partly explain) individual terminological choices.

In the article I first present the neurobiological aspect of reading literary texts. As a central characteristic, I emphasize the non-simultaneity – the temporal dimension – of reading and the potential recursiveness of cognitive processes involved in reading. I describe this openness of reading at the neurobiological level as a source of diversity in reading, that is, as a source of different interpretations and effects that the same literary text can have on different readers and on the same reader during different readings. In the final step of the argumentation, I understand the potential diversity of reading as a condition for the possibility of literary ethics, not only because it represents a purely technical possibility of “choice”, but because of the cognitive “fullness” of reading literary texts.

In accordance with the Slovenian literary tradition affirmed by Virk, I use the terms ethics and morality in the following sense: “The impression is created that ethics as a philosophical discipline is a theoretical reflection on the conditions of ethics and morality [...] and that morality as a discipline is a code or set of rules and instructions for moral action [...]” (Virk 15-16). On the other hand, my understanding of the term literature is more complex because I use it in the sense of a literary text – i.e., literature is a literary text – but also to refer to a group of literary texts that form a certain literary tradition, a certain genre, and

are oriented towards certain themes and the like. I am primarily concerned with the functioning of literary reading, which depends, on the one hand, directly on the characteristics of the individual text that the reader reads and, on the other hand, to the same extent on the characteristics of the texts that the reader has read in the past (habituation to genre rules), as well as on the personality traits of the reader and the characteristics of the specific reading context. Finally, in the context of the present article, literary reading is understood at the neurocognitive level as a technology consisting of an ordered – but at the same time partially open – set of mental processes. The main focus of this definition is on the notion of “openness”, which turns out to be a condition for the possibility of ethical reading and ethical criticism.

## COGNITIVE FOUNDATIONS OF READING

After explaining the choice of terms, I begin the content analysis of the topic under discussion with a brief overview of the neurocognitive aspects of reading. I speak of the neurocognitive aspects of reading in order to shed light on their neurobiological foundations – the emotional, mental, sensory, motor, thought and other mental processes involved in literary reading – and to justify the cognitive effects of reading discussed in the older first-generation cognitive literary studies. We should always keep in mind that the neurobiological processes depend on the characteristics of the text, the personality traits of the reader and the specific reading context – this is the basis and the first postulate of the “openness” of literary reading.

That many experiential mechanisms play a role in reading is not surprising, as empirical studies have confirmed the predictions of literary scholars that there are many factors that influence reading. Anna Chesnokova et al. compared the reading of a literary text (poems) in four languages (Brazilian Portuguese, English, Ukrainian and Russian) in two cultural contexts (Ukraine and Brazil) and found that the comprehension of the poem read depends not only on individual differences between readers and differences between languages, but also on the cultural context of the readers. This means not only that literary reading should be explored at the level of literary universals, discursivity and even idiosyncratic features of readers and reading, but also that openness is reflected in one way or another in the way the human body functions when reading literature.

It is important to emphasize that “most neuroscientists do not see the purpose of the human brain as being the construction of complicated cognitive representations. Rather, there is a relatively broad consensus [...] that the purpose of the brain is to use sensory representations to determine future actions”

(Bornkessel-Schlesewsky et al. 608). The brain also works with such a general purpose in language use or reading, which of course does not mean that the cycles in visual (or auditory) perception (reading or listening to a literary text) are simple and unambiguous. Wandell and Le describe the way the brain works in reading as follows:

Retinal photoreceptors encode the image and then transform this encoding with multiple specialized neural circuits. Retinal ganglion cells project directly to the lateral geniculate nucleus (LGN) and via the superior colliculus to the pulvinar. The parvocellular (P), magnocellular (M), and koniocellular (K) layers of the LGN project to the V1 and extrastriate cortex. The visual regions within the pulvinar project mainly to the extrastriate cortex. These thalamic nuclei also receive many inputs from the cortex. [...] Posterior visual signals are transmitted to the auditory and language system (redoverlay, white text). Five general cortical regions contain subdivisions that are consistently identified as active during reading: the VOT, which includes the visual word form area (VWFA); regions within the intraparietal sulcus (IPS), which appear to be a source of top-down modulation; regions near the primary auditory cortex in the superior temporal gyrus (STG), where adult dyslexics have low activation while integrating letters with speech sounds; and Wernicke's area and Broca's area, which are implicated in the comprehension and production of language. (Wandell and Le 299)

All this happens up to 300 ms after the stimulus is detected on the retina. In addition to these areas, there are all those that are not directly involved in language, but in processing the read data on a mental, emotional, motor and sensory level. The activation of these areas may depend on the reading method and the type of material read, as they may allow for more or less empathic experience, more or less immersion, reflection, and so on. All this happens up to half a second or a maximum of three seconds after the stimulus. This means that the processes of mirroring, emoting and remembering have about 200 ms to help shape the experience of what is read, of which the reader becomes aware.

There are “feedback loops” between conscious experience as cognitive processes and literary texts, “through which ‘experience shapes cultural practices’ even as ‘cultural practices help the mind make sense of bodily experience’ [...] The structures of neural anatomy are limiting but not ultimately defining” (Armstrong 408, 414). With regard to understanding the relationship between brain activity (neural firing) and experience (thinking and feeling), this means that experience shapes neural patterns through experiencing and learning, and that there are no universal and completely uniform maps of neural activations for any kind of experience. Stephen Nadeau says that the grammar we use is not inherently universal. It is based on the statistical regularities of our language experiences (summarized

in neural connectivity) that we have established through conversation and reading in relatively few human communities (Nadeau 164).

Reading is not done through a linear enumeration of signs, but through a process of alternating progressions (saccades) and fixations. Progressions are usually jumps of attention in the direction of reading, and in 10–15% of cases regressions in the opposite direction, bringing attention back to the previous focal point. Focus or fixation points are found in 70 to 80% of words, and individual words may have more than one focus point. In this case, focus usually takes between 200 and 250 ms. The time it takes for the eye to find a suitable fixation point (saccade latency) and to prepare for movement or transition to that point is between 175 and 200 ms. Movements last between 30 and 50 ms, and in between visual perception is temporarily suppressed (saccade suppression occurs 25 ms before movement to 50 ms after movement). “Because eye movements reflect ongoing lexical and higher-order linguistic processing during reading, it is important to understand the precise manner in which both types of processing relate to visual processing on the one hand and oculomotor control on the other” (Reichle and Sheridan 278).

This period of reading determines how reading takes place and how we experience it on several levels. The first level is consciousness. If we add up the duration of all the processes just mentioned, we get a duration of about half a second, which is exactly the time we need to become aware of the meaning of the text. Another level at which temporality determines reading is the amount of what is read. This, of course, determines the amount of words we can see in the focus phase. When reading, we see up to 14 parafoveal signs in the direction of reading and only three to five in the opposite direction. Two adjacent fixation points are therefore about 10 characters apart. The speed of reading and the number of characters together determine the third level, the amount of data. It is particularly important that we can process the data in a short time. A smaller amount of data would mean slower reading, but much bigger problems would be caused by too much data that could not be processed efficiently in the limited time frame of half a second.

On the one hand, the time frame of reading is determined by the neurobiological characteristics of visual perception. However, on the cognitive level, many brain areas are involved in reading, but not all of them in the same way, in the same order and with the same intensity. Only the asynchrony and potential recursiveness of mental, emotional and other bodily processes can be a possible basis for understanding the special effects of reading literature and especially narrative literature, which leads to a special kind of openness of reading at the level of brain activation. Phenomenologically speaking, this is the horizon of reading that can be expanded almost indefinitely through the possibility of changing the meaning of what is read in relation to subsequent information. The phenomenologist Paul

Buck Armstrong therefore emphasizes the importance of feedback loops between the domains involved in reading. This involves not only the basic possibility of consciously revising the meaning of what is read in the light of new information, but also the unconscious alteration of the perception of a particular aspect of the text's content in the light of changing information about it.

## **FROM THE OPENNESS OF READING TO THE DIVERSITY OF READINGS**

The multifaceted nature of reading as a technology is related to the fact that it involves cognitive, emotional, memory and motor processes that are interconnected but do not constitute a processual monolith. The temporal asynchrony of these processes is a feature of reading that allows not only a multiplicity of possible connections between them, but above all their mutuality. This results in the possibility of reading literary texts multiple times. However, the openness of reading is limited in three ways by the reading context: 1) by the personal characteristics of the readers, 2) by the historical, cultural, social and other circumstances of reading, and 3) by the characteristics of the text.

Literary scholars are interested in all three aspects. The first two are studied by sociological, positivist, cultural studies and various literary philosophical approaches, while the textual features are studied by genre studies, morphology and especially narratology. The elements that determine the reading of literary texts are thus diverse and range from motifs and themes to structural aspects of narratives, narrators, points of view and everything that constitutes narratives. There are a number of textual elements that can function in a variety of interactions rather than having single effects. We assume that some phonetic devices contribute to the memorability of literary texts, but probably not all of them equally and at the same time not in all cases and in all texts. Rhyme in shorter lyric texts, unlike in ancient epics, probably does not have this effect. Nevertheless, at least three different levels can be distinguished on which the individual structural elements of literary texts can be located: the level of literarization (stylistic and linguistic procedures/elements), the level of fictionality and the level of narration (temporal structuring of texts, presence of events, cause-effect relationships between events, distinction between fable and plot, etc.). Finally, all three levels operate simultaneously, which means that, for example, a certain textual element – a rhyme – may function one way in a certain historical or linguistic context, but in a completely different way in another.

Wolfgang Iser states that “[t]he ability to perceive oneself during the process of participation is an essential quality of the aesthetic experience; the observer

finds himself in a strange, halfway position: he is involved, and he watches himself being involved” (134). Such an understanding of the effect of literary texts on the reader is taken as a starting point by David Miall and Don Kuiken (2013), who emphasize the importance of literary effects (foregrounding) at the level of style, which create an entrainment effect on which to base the emotional experience of the text. Keith Oatley (1994) and other members of a Toronto-based research group, following Oatley’s simulation theory, assume that the reader’s identification with a literary character’s intentions and goals triggers sympathy with the literary character, and that the fullness of the empathic experience during literary reading results from the activity of filling in blanks “by which a reader supplements given character traits with a fuller psychologically resonant portrait” (Keen 217; see also Louwse and Kuiken 170). Given the high degree of innovation in these and similar approaches, it is not unexpected that they have certain problems in replacing the individual effects and aspects of the texts they trigger. Due to the lack of neurocognitive experimental studies, as Keen particularly points out, these approaches cannot yet determine which aspect of the text triggers which of the possible effects: a higher or lower level of empathic experience, emotional or cognitive empathy, reflection and self-reflection, immersion or transport, identification, etc.

In one of the earlier studies, Mar et al. (2006) found that there was a correlation between the amount of fiction read and empathy. This study was conducted with students and the Reading the Mind in the Eye (RME) test, i.e., identifying the mental states of people in photographs. However, this study did not examine the effects of reading – a causal relationship – but only a correlation, and it is not possible to determine whether reading fiction was actually the determining factor. Among the most important possible factors were the personality traits of the readers, since it was quite possible that more empathetic people read more and not vice versa. This relationship was also explored by the same authors Mar, Oatley and Peterson, in a study published three years later (2009) when they found that the results of the correlation between the RME test and the amount of fiction read did not depend on the main personality traits of the readers (using the Big Five test). However, this is only one of the possible influences on the relationship between empathy or empathic ability, human sociality and the reading of literary fiction. Given the distinction between cognitive and emotional empathy, the researchers hypothesized that reading literary fiction might be associated with promoting cognitive empathy, but not emotional empathy. Mar et al. saw this very hypothesis as the basis for a better ability to recognize the emotional states of others exhibited by individuals who read more literary fiction (“Bookworms Versus Nerds”). However, all of these studies and hypotheses are concerned with the long-term consequences of reading literary works,

which are difficult to separate from the influence of other behavioural and life-style factors of the study participants.

Another aspect of studying the impact of reading literary fiction on people's empathy and capacity for empathy is to examine "empathic responses to the reading of particular fictional texts" (Bunce and Stansfield 10; Johnson 150). John Stansfield and Louise Bunce mention transportation/immersion as an important aspect of reading that directly affects empathy, or "the extent to which the reader is captivated by the characters, the processing of the story, and the imagery" (10). The relationship between immersion and emotional empathy has been explored by Dan Johnson (2012), who finds that "individuals who achieved higher levels of immersion in the story showed higher levels of emotional empathy toward literary characters" (Johnson 154). Of particular interest is Johnson's finding, a by-product of his research, that higher levels of empathy initially mean a tendency to recognize fear in people's faces, even when they are not actually showing fear. One explanation for this phenomenon could be the evolutionary and neuroanatomical connection between the face recognition area – which, like the VWFA, is part of the network that processes reading – and the amygdala, where fear is processed. Matthijs Bal and Martijn Veltkamp (2013) also find that there is a link between immersion, emotional empathy and reading fiction. They compare reading fiction and non-fiction, but not the effects of reading on emotional empathy and cognitive empathy. Stansfield and Bunce find that there is a correlation between higher levels of cognitive empathy at the personality trait level and the amount of reading of literary fiction, but it should be emphasized that most research does not demonstrate causality, and the influence of these effects on people's real-life behaviour is not entirely clear, although Johnson notes that such an influence does exist (Johnson 154).

Given the diversity of early cognitivist approaches to literary reading, drawing on phenomenological and other traditional literary theoretical directions, it is not surprising that early in the development of neurocognitive research on literary reception there was an attempt to systematize both the aspects of texts that have an effect and the typology of effects themselves. Eva Maria (Emy) Koopman and Frank Hakemulder point out various possible aspects of research on (empathic, reflexive) effects of literary texts, taking into account which narratological and morphological aspects of the texts we focus on. They distinguish between three basic domains of effects – literary, fictional and narrative – and three types of effects: empathic experience, self-reflection and stillness. They assume that all these aspects usually coexist in literary texts and that the effects of the text on the reader depend (among other things) on how they are combined.

Their systematization is interesting mainly because it explains the effects during reading and the text features and possible different influences on the reader's

behaviour in real life in an overly analytical way. This redundancy, characterized by bidirectional relationships between individual text features, reading features and effects of reading on behaviour, often overlaps so that individual aspects of reading may not even be fully distinguishable and different types of reading may have different features. Texts have similar effects on the extent to which reading influences personality traits and thus the reader's everyday life.

## OPENNESS OF READING<sup>2</sup> IS THE CORNERSTONE OF LITERARY ETHICS

Reading literary works is an activity that demands a certain level of engagement from the reader and has corresponding effects. When these effects are no longer understood on a personal and individual level, the effects considered must also be transferred to a more abstract, collective level and explained as a social phenomenon. Virk gives an excellent critical overview of the discussion of ethics and literature in the history of literary studies. He explains which fields of discussion on literary ethics exist at all. Literary ethics from the perspective of neurocognitive literary studies focuses on literary reading. Although I foreground this, it is not the only way to discuss literary ethics in relation to neurocognitive literary studies. Another example I briefly touch on here is narrative ethics. While Virk points to the important distinction between the ethics of narrative and the ethics of storytelling, noting that Phelan's adherence to narratological premises "does not add much value as far as the question of ethics is concerned" (Virk 130). At the same time, in analysing Phelan's reading of Robert Frost's poem "Home Burial", he points to an interesting connection between the narratological distinction between the implied and the real author and, if I may generalize, the "indecision" of the reading. The connection is interesting in the light of the analysis of literary bibliotherapy by Davor Piskač, who links this difference to the possibility of a special bibliotherapeutic function mediating between the implicit experience of a literary person's feelings, thoughts, desires and beliefs when reading a literary text (empathy, ToM) and the real life of the reader. This is the message of the book:

The literary character and his or her needs are the focus of consideration from the point of view of aesthetic, cultural and psychological functions. Thanks to the function of bibliotherapy, the experience of the characters becomes a real life experience. We can see what the character could represent in "real" life and

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2 I wrote on diversity and reading in much greater depth in "Diversity in reading" (soon to be published by Cambridge Scholars in the volume *Wording Otherness*) from which I draw a part of the present considerations on the link between diversity and ethics in reading.

what needs he or she has as a living person. The bibliotherapeutic function thus transform a literary character into a real person. (Piskač 122)

The bibliotherapeutic function of reading, as understood by Piskač, emphasizes the difference – which Phelan understands as a consequence of narrativity – between the level of narration (literary characters, time, protagonist, story) and the level of telling/reading (what the real author and reader bring to the reading situation), but Piskač approaches it from the opposite direction. For Phelan the key lies in the relatively general and abstract connection between the narratological view of literature and ethical judgement or evaluation: simply put, it is important that we first “understand” what is happening at the level of narrative, only then can we evaluate it properly (Phelan 13). From the therapeutic perspective the advantage of literary reading is the safe space created by the fictionality of the text, in which the traumatic situation does not happen to the reader but to a literary character, because aim of bibliotherapy is the solution of a certain mental or emotional problem by the reader or simply spiritual growth and development. The example of bibliotherapy clearly shows that the prerequisite for the reader’s evaluation of the “nature” of a literary text on the narrative level is the openness of literary reading on the cognitive level – that the text has the potential to evoke certain emotions, feelings and thoughts – but that at the same time this is not sufficient to explain the relationship between ethics and literature.

The question of ethics in literature and the ethics of literary reading is a fundamental question of the social consideration of the effect of literary reading. Only on the basis of the values established by ethics can the reading of literature be defined as good or bad, and as an activity that is free and completely detached from social and individual consequences. In this context, the discussion of what is permitted and what is not, what is good and what is bad in an ethical sense, is to be distinguished from the question of what is beautiful or ugly, and from the question of what is aesthetically appropriate, pleasant and right and what is not. In the history of literary studies these questions often overlap, and in the work of individual theorists (Wayne Booth, Wolfgang Mueller, James Phelan, etc.) literary ethics and aesthetics can merge. Phelan, for example, writes in his “thesis seven” in the introduction to his book *Experiencing Fiction* that “individual reader’s ethical and aesthetic judgements significantly influence each other, even as the two kinds of judgements remain distinct and not full dependent on each other” (Phelan 14). Virk notes that the conflation of the ethical and the aesthetic in literature “is problematic even at the principled level, especially when it takes the form that ethical or moral lapses in literary works are also aesthetic” (Virk 94).

From the perspective of neurocognitive literary studies, the importance of grounding a possible overlap between the two areas of engagement with literature

cannot be overlooked. Aesthetic analysis relies not only on the reader's subjective assessment, but also on the criteria of how the text functions – whether it serves its purpose, whether it works, and whether it evokes aesthetic feelings. Texts that are well organized and beautifully written function and fulfil their purpose. Thus, a literary text can address ethical dilemmas, even the origin of good and evil and the transcendent justification of human behaviour, but at the level of the ethics of literary reading, it only works if it succeeds in transferring these dilemmas to the reader by provoking thought. It succeeds in this, among other things, if it is well written and has a high aesthetic value.

Of course, this kind of thinking is not peculiar to the neurocognitive approach to literature, nor does it signify anything particularly new or groundbreaking. The attitude to these questions justifies both the educational and the therapeutic use of literature, so that the contribution of literary studies is crucial in both cases and perhaps somewhat neglected in practice. Literature and other arts are always one step ahead of theory. Therefore, people have been using literature for therapeutic purposes long before psychologists, therapists and literary theorists started discussing bibliotherapy in the late 20<sup>th</sup> century, not to mention the educational use of literature. Neurocognitive literary studies can contribute to these discussions on ethics and literature in two ways.

First, it reveals the mechanisms of experience that constitute literary reading. These mechanisms include linguistic, emotional, motor and memory processing and function, as well as whole-body response. The reading of literary fiction is experienced more fully, comprehensively and deeply than the reading of non-fiction texts, due to the effect of stillness that catalyses cognitive processes such as immersion, empathy, ToM (Theory of Mind), literary identification, reflection, and so on. In my opinion, this fullness is also the basis for aesthetic emotions such as appreciation, respect, admiration, etc., which are an important part of the aesthetic evaluation of the text. Only on the basis of understanding how our experience works when reading (embodiment) can we explain, for example, the fact that texts that evoke sadness are usually perceived as aesthetically better than those that evoke joy.

Second, neurocognitive literary studies uncover patterns of experience that ground the actions of literary characters and the reader's relationship to them. In a literary text the narrator's world may be similar to the reader's in moral and ethical terms, but it may also be markedly different from their contours. In both cases it is possible to analyse the justification of their actions on a neurocognitive basis and define not only alternative patterns of thought and experience, but also alternative moral and ethical systems. What readers experience through embodied cognitive processes during literary reading are not only the various personality traits, desires, intentions and goals of the literary characters, but also of the implicit author and,

not least, of the implicit reader, as determined by intratextual references to them: e.g., choice of theme, narrative strategies, narrator, etc. Through the communication of all these elements as realized through reading, the instances of the literary person on the one hand and the reader on the other are potentially always exposed to reflection on what is right in the narrative or real world, but also on what is good for a literary person or reader. In both cases, the neurocognitive view implies neither an aesthetic nor an ethical judgement of literary reading, but a possible area of their encounter. Aesthetic reasons may be those that justify the ethical function of literary reading – for example, the arousal of prosocial emotions and altruistic behaviour in the reader – and based on ethical reasons a literary text may be considered inappropriate in the aesthetic sense. What is essential is that the embodied cognitive experience that grounds both the ethical and the aesthetic consists of unconscious bodily processes (which are largely prosocial and intersubjective), conscious reflection and the reading situation, which includes, among other things, the properties of the medium of reading. From the perspective of neurocognitive literary studies, then, the openness of reading as a technology on the neurobiological level is a condition for both the ethical and aesthetic evaluation of literary texts and logically – but not practically – precedes the effect of any structural features of literary texts. It seems that there is a third link in the dyadic relationship between the narrative and the narration, or, in other words, between the literary person and the reader, which Phelan hints at but does not fully demonstrate or infer. The situation can be described with the help of the hermeneutic circle. Reading literary and narrative literary texts provides the reader with access to different mental worlds of literary characters, which are constructed through the concrete reading of characters in a particular time and space, and based on which the reader then forms his or her own judgements about characters, stories, texts and implicit and real authors. But at the same time reading is based on embodied and overt emotional, mental, motor, sensory and other processes that are unconscious and that take place before we as readers access the meanings of texts on a more abstract, reflexive level, namely either in relation to the literary characters and their narrative worlds or in relation to the reader's multi-level ethical (and also aesthetic) evaluation of the literary text.

To what extent the openness of embodied experiential processes, i.e., motor, mental, thought, emotional and others, affects the ethics of literary reading is a question to which I have no answer. Equally difficult to answer is the extent to which the ethics of literary reading are influenced by the various cultural, social, educational, psychological, and other circumstances in which people read and act. However, the central insight of neurocognitive literary studies in relation to the ethics of reading is that neither ethical reflection nor moral decision-making are based solely on an abstract moral law, but on the embodiment of experience, and that the converse is also true: whatever open embodied experience means at the

neurocognitive level, the ethics of reading is not determined by it. Indeed, it simply does not exist at this level. We should perhaps follow LeDoux's observation that it is not activity in the amygdala that triggers fear, but the body's defence system, which is then consciously conceptualized as fear. The point of literature is not that it triggers a defence mechanism, but that we experience "fear" through it, but only by understanding the defence mechanism can we grasp the full meaning of "fear". The openness of reading as a technology gives rise to the diversity of readings of literary texts, i.e., the diversity of interpretations, experiences, and ethical reflections. The openness of reading is therefore the cornerstone of literary ethics.

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## Kognitivni temelji etične literarne vede

V osemdesetih in devetdesetih letih prejšnjega stoletja se je v humanistiki in literarni vedi zgodil etični obrat, ki pomeni povečanje zanimanja za raziskovanje razmerja med literaturo in etiko. Danes ta del literarne vede imenujemo etično kritištvo ali etična literarna veda. Eno od slabše raziskanih področij etičnega kritištva je razmerje med etiko in kognitivnimi vidiki branja. Zato v tem članku analiziram nevrobiološke podlage branja. Branje razumem kot tehnologijo, utemeljeno na številnih utelešenih miselnih, čustvenih, motoričnih, senzoričnih, spominskih in drugih kognitivnih procesih. Časovno-prostorska dimenzija teh procesov, ki jo imenujem odprtost, je posebej pomembna. Na izkustveni ravni namreč pogojuje raznolika branja, nazadnje pa tudi pogoje možnosti vzpostavljanja razmerja med literaturo in etiko, in sicer skozi razmerja do literarnih oseb, pripovedi in implicitnih ter realnih avtorjev in bralcev.

**Ključne besede:** kognitivna literarna veda, literarno branje, raznolikost, etične sodbe, estetske sodbe