



## Enthymema XXXVI 2024

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**Title** – Review of Renata Gambino & Grazia Pulvirenti, *Mind the Text! Neurohermeneutics for Suspicious Readers*. Cambridge Scholars Publishing, 2024.

**Keywords** – Embodied Cognition; *Ganzer Mensch*; Literariness; Neurohermeneutics; Suspicious Reading.

Orlandazzi, Irene. "Review of Renata Gambino & Grazia Pulvirenti, *Mind the Text! Neurohermeneutics for Suspicious Readers* (Cambridge Scholars Publishing, 2024)". *Enthymema*, n. XXXVI, 2024, pp. 306-311.

<https://doi.org/10.54103/2037-2426/27308>

<https://riviste.unimi.it/index.php/enthymema>

ISSN 2037-2426



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# Review of Renata Gambino & Grazia Pulvirenti, *Mind the Text! Neurohermeneutics for Suspicious Readers* (Cambridge Scholars Publishing, 2024)

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The concept of imagination is now at the centre of many studies on the interconnection of the human mind and body, linking and overlapping different disciplines that offer their own perspectives and methodologies. As early as the end of the eighteenth century, the so-called *commercium mentis et corporis* discourse gave rise to the anthropological idea of the *ganzer Mensch*, which saw human nature as the result of a constant and perfect dialogue between mind and body, thus placing the physiological dimension on the same level as the rational one and opening up a new era in the understanding of the human soul and its realms.

In Johann Gottfried Herder's emblematic essay "On the Cognition and Sensation of the Human Soul" (*Vom Erkennen und Empfinden der menschlichen Seele*, 1778), in which the title already heralds the intuition of an interdependence between reasoning and feeling, emotion is not distinct from cognition and cannot be dissociated from it, as it plays a central role in all cognitive processes. Indeed, these involve the manipulation of emotional experiences embedded in complex phenomena, leading to the emergence of new ideas. Herder relates sensory knowledge, thought and emotion, rooting them precisely in corporeality – that is, in what he calls the *Nervengebäude*, understood as the physiological totality from which thought, will and spirit derive, in a constant interaction with the surrounding world regulated by the senses. In the anthropological perspective set out in the Herderian essay, there is therefore already a circular relationship between the external world (*Welt*), the brain (*Hirn*) and the heart (*Herz*), from which imagination and passion originate:

If the heart has the power of so uniting sensations which lie around it that a single drive, a single desire *comes into being*; if the head has the power to bring sensations which flow through the body into a single representation, and to *guide* the former through the latter, which seems to be of such a different nature. [...]

The inner human being with all his obscure forces, irritations, and drives is only *single*. All passions, lying about the heart, and stirring many sorts of tools, are connected together by invisible bonds and plant roots in the subtlest structure of our ensouled fibers. [...] What does the object that I see have in common with my brain, the brain with my undulating heart, that the former becomes an *image*, the latter a *passion*?. (194, 195, 205-206)

Mind and heart – *Hirn und Herz* – combine to determine the essence and cognitive faculties of everyone and are in constant communication and deep connection precisely because of emotional phenomena.

Today, neuroscientific discoveries are confirming the intuition of the 18<sup>th</sup> century studies on the idea of the *ganzer Mensch*, finally breaking down the boundaries between disciplines and instead opening the possibility – or rather the necessity – of a consistent dialogue between the

hard sciences and the humanities. The neuroscientist Vittorio Gallese, one of the researchers who discovered the mirror neurons in the Parma team led by Giacomo Rizzolatti, states:

What about imagination? Mirror mechanisms are just *one* instantiation of embodied simulation: when mirror mechanisms are activated, the simulation process is triggered by perception, like when observing someone performing an action, expressing an emotion, or undergoing a somatosensory stimulation. However, embodied simulation can also occur when we imagine perceiving something or imagine doing something. When we imagine a visual scene, we activate the same cortical visual areas normally active when we do perceive the same visual scene. [...] In other words, visual and motor imagery do qualify as further forms of embodied simulation. (116)

It is now clear that the imagination, far from being something abstract and untouchable, is a process rooted in the fibres of our bodies that connects the external world with the internal world of each individual, a place where all the stimuli coming from outside are elaborated in infinite and unique ways.

The latest volume of Renata Gambino and Grazia Pulvirenti, *Mind the Text! Neurohermeneutics for Suspicious Readers*, edited by Cambridge Scholars in 2024, is at the heart of these most recent transdisciplinary intersections born out of an awareness of the complexity of human nature and of imagination processes: “It progressively appeared to us inadequate to deal with any specific aesthetic phenomenon without considering the complexity in which it is rooted, namely the connection between the brain and its activity and all that this activity has produced and it nourished by”(xii). It is in this holistic perspective that the two Germanists present and adequately synthesise here their neurohermeneutic proposal, a stimulating and dynamic vision of what literary studies can mean today, in a concrete and authentic transdisciplinary practice. Thanks to the fruitful influences of scholars who have valued the dialogues between the humanities and the hard sciences, necessary to delve into the complexity of the human *bios*, such as Vittorio Gallese, Semir Zeki, Mark Turner, Francisco Varela, Evan Thompson, Eleanor Rosch and many others, Gambino and Pulvirenti come to establish the fruitful network ‘NeuroHumanities Studies’ and to formulate the principles of a ‘neurohermeneutics’, with which to delve into the depths of the literary text:

The term neurohermeneutics joins hermeneutics to neuro-cognitive research with regard to the assumption that literary features derive from and prompt specific mindbrain processes. Its objective is to provide fresh insights into the act of reading literary texts, intended both as a complex mindbrain process and as an interpretative act. Our examination of literary texts, employing both qualitative and quantitative methods, has yielded two significant overall implications. First, literariness necessitates a distinct mode of reading. Second, the aesthetic pleasure derived from reading a literary text is heightened by adopting a ‘suspicious stance’. (xv)

The act of reading is thus the protagonist of Gambino and Pulvirenti’s neurohermeneutic proposal, and the main addressee of the book is the ‘suspicious reader’, ready to go beyond the surface of the page and to perceive what makes a text a work of literary art. In fact, far from being a purely rational intellectual activity, reading involves the mind and the body together, and in this sense the literary text becomes the starting point for imaginative processes that, as Herder already intuited and as neuroscientists now prove, are translated into emotions, physical sensations, thoughts and concrete actions. The act of reading is thus presented here as a dynamic process between the author, the text and the reader, resulting from the direct interplay between the stylistic elements of the text, consciously or unconsciously conceived by the author, and their concrete effects on the mind and body of the reader. Literature, in this perspective, becomes an expression of the holistic human nature, and for this reason it must be studied and approached through a transdisciplinary lens and methodology. In the words of Gambino and Pulvirenti:

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This approach challenges traditional divides between the sciences and the humanities, as well as between text-immanent interpretation, reader-response criticism, and discourse analysis. Our neurohermeneutic approach aims to explore the deep interaction between literature and the human mindbrain. It offers fresh insights into how literary texts are created, received, and understood. This effort aims to prompt a heightened awareness of the intricate layers of literary texts, considering how they evoke responses, provoke interpretations, and impact on broader cognitive and cultural contexts. Ultimately, we aim to contribute to transforming the act of reading and comprehending literature into a creative, thrilling, and engaging process that incorporates cues of curiosity, suspense, and surprise. (xvi)

Thanks to this approach, literature becomes an integral part of our daily life and an important tool for the construction of our thoughts and our personality. In a few words, literature becomes a fundamental anthropological tool, and this volume, through simple and exhaustive explanations, gives instructions on how to be one of those ‘suspicious readers’ able to enter and become part of the neurohermeneutic circle.

Taking as their theoretical and practical framework the neuroscientific paradigm of 4E Cognitive Science, according to which all our cognitive processes are intrinsically embodied, embedded, enacted, extended, and – hence what is now called 5E Cognition – emotionally connotated, the authors see art and literature as intimately linked to a biocultural discourse. The neurohermeneutic approach presented in this book aims to elucidate the act of reading literary texts as a process determined by the totality of our brain and body and their dynamic dialogue. Like any action, reading involves embodied simulation, empathy, and emotional processes that run in our neural correlates and are translated into somatic signals and thoughts. In this view, the reader interprets the text through the complexity and totality of the mind-body system, just as the author does when creating and writing the text.

Gambino and Pulvirenti, aware of the need for a transdisciplinary approach to the study of literature and to entering into its complexity, present here the concept of the ‘suspicious stance’, which “orients the reader to integrate the literal meaning of the text with prior knowledge of a variety of sorts, since interpretation is a constructive process engaging the body, emotions, imagination, and cognition” (xx). The starting points of these processes are what Pulvirenti and Gambino call *Stolpersteine*, ‘stumbling blocks’, i.e. areas of density, places in the text with an excess of stylistic features that require a ‘suspicious’ reader to notice and interpret them. In the words of Gambino and Pulvirenti:

The reader, who is driven by the stance of suspicion, can discover the ambiguities, contrasts, and incongruences of the fictional world, focusing on the formal and stylistic features and dynamics, and responding with their embodied engagement to the text, imaginatively simulating through their body and mind the storyworld. These aspects aid in reshaping the delight of unravelling the fictional realms of literature, encouraging the reader to engage with the text as an uncharted territory teeming with countless interpretations. (xxi)

Starting from a clear explanation of the transdisciplinary theoretical framework behind this idea in the first chapter, the second chapter is devoted to the contemporary paradigm of 4E cognition, which has its origins in the German philosophical, anthropological and aesthetic discourse of the 18<sup>th</sup> and 19<sup>th</sup> centuries, converging in the idea of the *ganzer Mensch*, which today finds scientific proof thanks to neuroscientific research and laboratory tests. Then, in the third chapter, the authors present the pillars of their neurohermeneutic approach, synthesised in the idea of *literariness* and reunited in the ‘stumbling blocks’: a literary text is full of elements that determine alienation, ambiguity and cognitive gaps. These concepts, developed and confirmed today by various disciplines that are increasingly interlinked, have their roots in what Jurij Lotman called ‘second-degree language’, characterised by a multi-layered polysemic

structure that requires suspicious interpretation. In this respect, Pulvirenti and Gambino show how the concept of ‘suspicion’ also has its roots in the past, more precisely in the hermeneutics of Paul Ricœur.

The fourth chapter takes the theoretical foundations of Ricœur’s practice of suspicion and presents its most recent developments in the empirical study of literature. These are to be found, in particular, in the Panksepp-Jakobson hypothesis, which proposes a correlation between the emotional content of literary texts, the reader’s level of immersion and, consequently, the way in which the reader actually *reads*. From this hypothesis, the most recent perspectives in the field of empirical literary studies have been developed, such as the ‘Meso-model’ of Arthur M. Jacobs and his team in Berlin, which is now spreading all over the world, the ‘Feeling of the Body’ of Vittorio Gallese and Anna Wojciehowski, and the neurohermeneutic approach presented by Gambino and Pulvirenti, which is able to integrate and summarise all these ideas and methods.

In chapter five, they present their neurohermeneutics of suspicion, based on Ricœur’s model and embedded in all the latest stimuli from the transdisciplinary dialogues developing in the field of empirical literary studies. Gambino and Pulvirenti claim that

the literary text – more than any other – drives the reader to activate unique and specific dynamic relations between many elements of the text in order to construct meaning, starting from the process of stabilisation, intended as the coexistence of multiple meanings or ambiguity in a neurobiological sense. (76)

In order to detect and analyse the density fields where the *Stolpersteine* that cause this ambiguity are located, in chapter six they present their Foregrounding Assessment Matrix (FAM) 2.0, “a multi-dimensional interface between qualitative and quantitative methodologies utilized to uncover dissimilarities in the textual framework of poems, which can impact overall comprehension and aesthetic appreciation” (84). This matrix is an enlightening device through which to discover all the foregrounded phonological, morpho-syntactic and rhetorical elements of a literary text, which are distributed on different levels: sublexical, lexical, interlexical and suprallexical level. These elements are what make up the *literariness* of a text and give rise to that multilayered meaning that resonates with the reader’s physical, emotional, imaginative and cognitive experience, as shown in chapters seven and eight through some illuminating examples taken from the analysis of literary texts, read through of an authentic transdisciplinary lens.

Vittorio Gallese and Ugo Morelli, in their recent publication with the eloquent title ‘What Does it Mean to Be Human? How Our Body and Mind Live in the Present’ (*Cosa significa essere umani? Corpo, cervello e relazione per vivere nel presente*, 2024), affirm that narration is one of the ways to create oneself, to invent oneself, to become oneself, defining a close relationship between narration and individuation (24). In conclusion, Gambino and Pulvirenti’s book provides explicit and precise evidence of this, exploring and presenting the literary experience as a complex and dynamic interweaving between the text and all the worlds – material, emotional, cognitive, relational – of the author and of the reader. In this groundbreaking study of the act of reading, they suggest that literature is born in the heart of the *bíos* and, because of its intrinsically human nature and origin, it is a key for understanding other worlds as well as one’s own mysterious inner world. In short, as *Mind the Text! Neurohermeneutics for Suspicious Readers* brilliantly demonstrates, summarising its intent in the play on words that makes up the title, literature proves to be a valuable vehicle of intersubjectivity, the authentic heart of all human thoughts, actions, relationships and imaginative processes. It is precisely from the realm of the imagination, indeed from the core of the neurohermeneutic circle, that new stories emerge, always capable of resonating with our minds, our bodies and the world around us.

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From this perspective, opened and nourished by the ongoing transdisciplinary dialogues between the hard sciences and the humanities, reading this book means becoming aware of the complexity and beauty of literature, an anthropological device for exploring the depths of human nature, which can be observed and physically felt just by reading – as Renata Gambino and Grazia Pulvirenti have insightfully shown – with a suspicious mind.

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