

Pierre-Louis Patoine

Representation and Immersion. The Embodied Meaning of Literature

This article is an attempt to link together the notions of representation and immersion within an interdisciplinary framework combining neuroscience, literary studies, and philosophy. What is representation? Can we define its mode of existence and describe its natural habitat? Does it live on the page of a novel, in the brain's circumvolutions, or in-between? Is it possible to intensify our experience of representation through immersive reading? How can we reach such immersive altered state of consciousness? What are its ethical and ecological implications? These are the questions we will be addressing in the following pages, in which we will first explore the neurophysiological conditions of immersive embodied reading, before considering its opposition to the productive, in-control cognitive styles promoted by our rationalist modernity.

1. A Representation Is a Representation Is a Representation

In an article published in 1994, dealing with “The neurology of kinetic art,” Semir Zeki and Megan S. Lamb used the word “representation” twice. Let us consider the first occurrence: “We are not concerned with the representation of motion in static terms or of the suggestion of motion by various static and graphic devices [...]” (p. 608). The word “representation” here is used to talk about the ability of a work of art, of a designed object, to evoke an aspect of the material world (in this case: movement). In its second occurrence, the word “representation” refers to something quite different. Let us read: “This suggests that there is a different, and separate, representation for dynamic, as opposed to static, forms and for forms defined by motion as opposed to those defined by luminance in the human brain” (p. 610). Here, “representation” evokes the capacity of the brain to respond to specific aspects of the environment, a capacity that is apparently enshrined in equally specific neuronal networks. Are these two types of “representations” related? If so, how? How do the artistic representation of movement and the neuronal networks dedicated to the perception of movement co-construct each other? Can certain types of relation between these representations facilitate or impeach immersion?

Before we get back to these questions, let us examine a last use of the word: this one in an article published by Semir Zeki in 1999, "Art and the Brain," in which he discusses, among other topics, Michaelangelo's unfinished sculptures:

"By thus leaving them unfinished, Michaelangelo invites the spectator to be imaginatively involved, and the spectator's view can fit many of the Concepts, the stored representations, in his brain; his brain in fact becomes the concrete place of the birth of forms suggested, no more, by the unfinished work." (p. 82)

In this use of the word, a "representation" becomes a mental object, a concept, and an imagined form born in the brain. To sum up, it appears that we use the word "representation" to mean:

1. a physical form, a drawing, a painting, a sculpture, or a text imitating or expressing an aspect of our world (artistic representation);
2. a mental image (mental representation); or
3. a neuronal network responding to specific events and objects (neuronal representation).

These three uses constitute a limited but interesting sample we should keep in mind while we discuss the problematic relation between "representation" and "immersion" across the neuropsychological and artistic domains. Our hypothesis is that artistic and literary representations can be the site of an embodied, immersive experience (absorption in esthetic contemplation) that enhances the vividness of the mental representations it generates, an intensification that might be correlated with a disinhibition of the associated neural networks.

2. Immersion in Representation through Embodied Simulation

To assess the validity of such hypothesis, we need to first establish a working (imperfect) definition of immersion as a full, bodily involvement in a textual universe. Such an involvement is made possible by the strong interrelation between cognition and the sensorimotor body, which has been investigated by numerous psychologists and philosophers. For example, in a 1991 psychological study, Decety and his team demonstrated that heart and respiratory rates increase when our motor imagination simulates intense physical effort. As in actual physical exercise, the increase in physiological activation is proportional to the intensity of the imagined effort. The study is interesting in that it involves not only the brain but also the autonomic, sympathetic nervous system. An immersed reader caught up in a passage describing a physical effort might very well experience an enhanced activation of this system, resulting in an increase in heart and respiratory rates. This type of mimetic resonance might remind us of the late 19th century notion of *Einfühlung* (as it appeared in the work of German thinkers

such as Robert Vischer and Theodor Lipps; see Curtis, 2014) or of early physiopsychological studies such as the one published in *Science* in 1927 by Edmund Jacobson (an American physician who was a great advocate of relaxation as a prophylaxis for psychosomatic disorders), entitled “Action currents from muscular contractions during conscious processes,” in which subjects were asked to imagine muscularly and then visually bending their arm. In the former case, he observed muscle tension with no eye movement and in the latter case, the reverse, suggesting a specific bodily involvement accompanying the different modalities of imagination.

The conclusions of these pioneering studies no doubt require refinement. Nonetheless, they foreshadow the embodied vision of cognition now espoused by scholars such as neurologist Vittorio Gallese and philosopher George Lakoff, who argue for a simulative model of imagination, writing: “When one imagines seeing something, some of the same part of the brain is used as when one actually sees. When we imagine moving, some of the same part of the brain is used as when we actually move” (Gallese and Lakoff, 2005, p. 456). Among the various studies tending to confirm such affirmation, we can cite Boulenger, Hauk, and Pulvermüller (2009) who, studying language comprehension, observed a similar neural activation when subjects would look at hand, mouth or feet action and when they would read sentences describing actions such as biting the banana, grasping the pen, and pressing the car brake. Concurring conclusions have been reached by Barsalou et al., through his experiments on what he calls “grounded cognition.” In one of these experiments, participants were filmed listing the properties of objects typically found overhead or underfoot, such as birds or earthworms. When they listed the properties of birds, their eyes, faces, and hands tended to turn skywards; when they did the same for objects on or in the ground, like worms, they turned toward the floor. Barsalou et al. (2005, p. 27) argue that this observation indicates that the participants simulate the experience of “being there” with the objects whose properties they have been asked to list. In the cases mentioned earlier, it appears that mental representations (imagined effort, actions, or objects) mobilize the sensorimotor body, extending the centrally located “neuronal representations” to the peripheral nervous system. However, if such embodied imagination can be triggered by the experimenters’ simple instructions, would not it be the case that artistic texts, by encouraging our immersive dispositions, can generate “mental representations” that rely even more intensely on our sensorimotor body? To answer this question, we need to understand better some of the factors that modulate embodied simulation.

In the experiments we have just cited, neural simulation appears to be linked with habit and motor memory, but it can also be based on direct imitation, through the action of mirror neurons. Mirror neurons are visuomotor neurons that are

characterized by the fact that they fire in the same way when a subject executes an action and when he/she sees someone doing the same action. This seemingly simple principle hides in fact important nuances. For example, a 2006 study by Calvo-Merino and colleagues demonstrated that the mirror neurons of dancers responded more strongly than those of non-dancers to the perception of dance movements. It would thus seem that, to a certain extent, dancers would be better equipped to fully immerse themselves in a dance representation, just like a cricket specialist would be more apt to experience intensely a cricket match (more on this below). Perceived action, however, is not the only thing that can be simulated. Perceived sensation in others can also trigger neural simulations. The empathic sharing of pain is especially well documented. For example, seeing a hand in a painful situation will activate parts of the pain matrix in your own brain, and such activation will be stronger if you are shown a realistic photograph of such “painful hand” than a badly drawn cartoon (Gu & Han, 2007). Moral judgment also influences such empathic resonance: if you perceive someone as unfair, for example, or outside of your social group, the neural simulation of his pain will be weakened (Singer et al., 2006). This kind of modulation is likely to happen also during literary reading, even though it does not imply direct perception. I am convinced that not only sensorimotor expertise but also interest, sympathy, and even love for a character, for an author, or for the work itself, for its specific style, will influence the somatosensory, immersive engagement of the reader.

These forms of simulative, embodied cognition, emerging from the sensory-motor interactions between an organism and its environment, have led scholars to put forward a new definition of representation. Garbarini and Adenzato (2004, p. 101) make the case that representation is not a duplication of reality but rather a virtual triggering of the perceptual and motor procedures that allow us to recognize and interact with real objects. They espouse a theory of representation dictated not by mimesis, that is, imitation, but rather by simulation and action. This paradigm shift is significant for literary theory. Stendhal wrote in the nineteenth century that the novel is a mirror carried along a high road; in the embodied vision of cognition, the mirror becomes a virtual reality simulator. This involves a switch from an imitative to a simulationist conception of representation, a switch we can understand through Jean Baudrillard’s distinction between imitation and simulation in *Simulacres et simulation* (1981). For Baudrillard, the difference between imitation and simulation lies in their specific way of articulating fiction and reality. Where imitation maintains the two as separate, opposing domains, simulation deconstructs this oppositional structure to establish continuity between the two. For instance, if one imitates illness, it will always be possible to unmask the faker behind the feigned symptoms because the imitation is founded on maintaining a difference between real and imitated illness.

A simulated illness is harder to tell apart from real illness because it can cause real, psychosomatic symptoms. Baudrillard also gives the example of a fake bank holdup, during which a frightened client dies of a heart attack and a novice police officer shoots the faker. Here, as in psychosomatic illness, simulation (and belief, another topic we will evoke below) opens up a pathway between mental representations and bodily reality, challenging the difference between real and fake and between reality and imagination. Merleau-Ponty discusses a similar phenomenon in noticing that the body “transforms ideas into things, and my mimicry of sleep into real sleep” (2005, p. 191). As the mimicry of sleep can become real sleep, as the fake illness can produce real symptoms, immersive reading can transform mental representation in a rich bodily experience. In these two cases, belief and a certain disposition of the body (relaxation) appear as crucial components of the incarnation of representations. These two parameters are then to be added to sensorimotor expertise and to moral or affiliative judgments, as factors in the immersive intensification of representation.

However, is it possible to experience “true” sensations as we immerse ourselves in a narrative? To answer this question, we need to consider the relative independence of sensorimotor neural representations from actual stimuli. Normally, we conceive of a sensation as a direct consequence of a specific stimulus: a punch in the face results in a number of tactile, somatic sensations. The link between the punch and the sensation, however, is not totally unmediated, and depending on my mental state, habits, and desires, in my previous experiences and expectations, the resulting subjective experience can greatly vary. This is probably why a fakir can walk on burning coals and I cannot. There are even cases of sensory experiences without any external stimuli: dreams are a common example and hallucinations are another, as are we phantom pain and phantom limbs. Immersive, embodied reading would also be a case of a sensory experience without physical stimuli, and we could say that readers who actually feel the somatic sensations described by a text are producing some sort of phantom body, an in-between body that interfaces between the reader and the text. For neuropsychologists Ronald Melzack and Joel Katz, who have worked extensively on phantom pain, such phenomena are possible because the experience of the body is primarily generated by the central nervous system – that is, by the brain (2006). Happily for us, most of the time, this experience is modulated by external inputs, so we can actually navigate the physical world. However, it is not always the case, and we can also experience sensations without stimuli, sensations that would be generated entirely by the brain, or in other words, neurally simulated.

We should note however that our experience of meaning is not systematically embodied and simulative. We can also produce mental representations that seem quite abstract, amodal, or only weakly anchored in sensation. Moreover, neural

simulation does not mean actual conscious experience. If you look at someone moving, your mirror neurons may fire, but this does not mean that you will automatically do the same movement you are looking at. In most cases, neural simulations remain pure potential, a sensorimotor or affective potential. When we read, most of the time, this sensorimotor or affective potential will not be actualized, but some texts and contexts can create conditions where this potential can realize itself on the conscious scene. Immersion might be a crucial condition for such actualization. A text that aims at destabilizing its reader, pulling him or her toward abstract thought and critical reading, will probably not facilitate the transformation of semiotic forms into somatic forms. Literary fiction is an immersive technology in so far as it allows reading practices to alter our state of consciousness and expand our experiential space by relying on embodied interpretation and somatosensory neural simulations. A text is immersive if it relaxes our body–mind, preparing us to be affected by fictional images that give us “the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all of our attention, our whole perceptual apparatus” (to reuse Janet Murray’s definition of immersion, 1997, pp. 98–99). This transformation of the semiotic forms into the somatic forms demands a specific kind of disposition, a kind of passive, receptive energy that contrasts with the intellectual productivity that is sometimes associated with the reading of “appropriate” literature. Let us now focus on this specific disposition that modulates our level of sensorimotor involvement in a literary representation.

3. Three Altered States of Consciousness: Illness, Sleep, and Enthusiasm

The immersive stance of the embodied reader can be understood by analogy with three other states of consciousness that have interested writers: illness, sleep, and enthusiasm. In her essay *On Being Ill*, Virginia Woolf beautifully describes the enhanced physicality of meaning during illness, when we are more vulnerable and more sensitive:

“In illness words seem to possess a mystic quality. [...] In health, meaning has encroached upon sound. Our intelligence domineers over our senses. But in illness, with the police off duty, we creep beneath some obscure poems by Mallarmé or Donne, some phrase in Latin or Greek, and the words give out their scent and distil their flavour, and then, if at last we grasp the meaning, it is all the richer for having come to us sensually first, by way of the palate and the nostrils, like some queer odour.” (Woolf, 2002, pp. 21–22)

Woolf here compares “intelligence” or “higher cognition” with a police that would arrest the sensual development of the linguistic sign. Illness thus seems to augment our capacity for being affected. Illness, however, is not the only state

capable of opening up our sensitivity to artistic representations. Altered states of consciousness such as sleepiness may also play a role in this intensified receptivity. This is an idea we find in William Gass, the American author who writes:

“The purpose of a literary work is the capture of consciousness, and the consequent creation, in you, of an imagined sensibility, so that while you read you are that patient pool or cataract of concepts which the author has constructed [...] The will is at rest amid that moving like a gull asleep on the sea.” (Gass, 1970, p. 32)

The image of human will as a sleeping gull corresponds neatly to the immersive state, which demands of the reader’s body–mind that it move with the waves of the text, while the “police of intelligence” is off duty. The attenuation of voluntary consciousness, of the will to act efficiently, in favor of openness to our textual environment appears to be a characteristic of immersion that allows the meaning “come to us sensually first.” This openness is also enhanced by enthusiasm, an affect that is central in John R. R. Tolkien’s reflection on fairy stories.

Enthusiasm is indeed crucial to Tolkien’s vision of immersive reading, which builds on Coleridge’s early nineteenth century definition of poetic faith as “willing suspension of disbelief” (Coleridge, 2013, chap. 14). For Tolkien, the mere suspension of disbelief is too weak to describe our involvement in fantasy worlds, which we can inhabit though what he calls “the enchanted state.” What is this enchanted state? He compares it to that of a cricket fan absorbed by a match:

“A real enthusiast for cricket is in the enchanted state: Secondary Belief. I, when I watch a match, am on the lower level. I can achieve (more or less) willing suspension of disbelief [...] I fancy it is often the state of adults in the presence of a fairy-story. [...] But if they really liked it, for itself, they would not have to suspend disbelief: they would believe – in this sense.” (Tolkien, 1965, p. 37)

This example suggests that, during immersion, judgments of truth or reality (passed by Woolf’s “police of intelligence” or Gass’s “will”) are overridden by enthusiasm. For Tolkien, enthusiasm leads to a kind of belief, and as we have just seen with Baudrillard – in so far as belief in a fake hold up can cause a real heart attack – belief can intensify and embody our experience of representation. It thus seems that watching a cricket match or reading a novel with enthusiasm creates an enhanced sensibility liberated from the limits normally imposed by higher cognition, an imposition we will now interrogate.

4. Unproductive Styles of Interpretation

What do we usually consider to be good literature today? That written by Shakespeare, Dante, Keats, Faulkner, and Robbe-Grillet or texts that are accessible

to an educated readership that seeks intellectual productivity. A blurb chosen to figure on the back cover of the 2006 edition of contemporary classic *Infinite Jest* (a massive literary masterpiece by David Foster Wallace) is an excellent illustration of both the belief in artistic progress and the importance of intellectual productivity in the valuation of literary works. The novel is described in these words: “The next step in fiction [...] Think Beckett, think Pynchon, think Gaddis. Think.” (Sven Brikerts, *Atlantic Monthly*). What is valued here? – linear progress (“the next step”) and intellectual activity (“think”). For me, these two criteria are fundamentally modern and related to the formalist concept of *ostranenie* or defamiliarization (see Shklovsky, 2015). According to this modern view, a work is valuable in its power to renew our cognitive, linguistic, and semiotic habits. Defamiliarization and formal innovation separate art from entertainment: artistic activity, then, finds its legitimacy in the production of a gain, of a progress; it is inscribed in a dialectic growth (dialectic because the “new” can only surpass a familiar form, a preceding state of codes and conventions). Such an ideology of cultural development today appears like a natural axiological frame, which allows an ordering of works of art according to their power of innovation. There is no denying that such dynamic of renewal is an interesting aspect of artistic practices. However, this model tends to devalue sensationalist texts and immersive texts that are not innovative in terms of code. These texts represent an artistic wealth that we should not dismiss, offering us the occasion of an unproductive reading, a reading that disobeys the diktats of constant progress and efficient action.

Complex literature, like *Infinite Jest*, or James Joyce’s *Ulysses*, orients us toward complex interpretation. They challenge rational understanding. By destabilizing our reading habits, they invite us to enter a fight for control. The complex text is like a puzzle, or a game, that the reader must resolve intellectually. As literary scholars, we spend long years developing our analytical capacities, our ability to produce coherent interpretations, to master challenging texts. However, this expert reading may prevent the immersive involvement of the reader in the text and the emergence of sensorimotor and affective neural simulations. This emergence demands a very different attitude, a posture of receptivity and of giving up control to the text. This receptivity, however, is not to be associated with the un-expertise of casual readers. Immersion, imaginary absorption in fiction is a technique that is no less demanding than complex, intellectually productive interpretation. However, the capacity to be affected by texts is not something that we normally learn or teach.

Pioneering musician Brian Eno, in a paper delivered in 2011, emphasized, from his point of view as a practitioner, the importance of surrendering to an emerging form, of becoming more like a gardener attuned to his environment and less like an architect planning a top-down intervention to create a

structure. For Eno, “we’re used to the idea, coming from the industrial and very intelligent post-Enlightenment history that we have, we’re used to the idea that the great triumph of humans is their ability to control.” While for Eno this is obviously a useful way of behaving, it can overshadow the “talent to surrender and to cooperate,” the ability to know when to stop trying to control and to “go with things, to be taken along by them.” While this may sound like some indigent pop-philosophy, Eno touches on a pertinent point when he argues that “we’re so used to dignifying controllers that we forget to dignify surrenderers.” This question of valuation and dignity is central to my argument and to institutional literary practices. In an academic system based on competition and oriented toward the production of rational interpretations, the surrenderer is unfit; in a neo-liberal society where humanities already struggle for legitimacy and where there is little time for expert contemplation and surrendering, literary scholars would be hard-pressed to defend embodied, immersive reading over intellectually productive interpretation. We could even speculate about the gendering of these styles of interpretation, as it may be that the capacity to be affected, receptivity, which has been traditionally associated with femininity, has been devalued as such. The feeling, sensitive reader, absorbed in a novel, is typically (in our collective imagination, and historically, see Bloom, 2003) a woman, a stay-at-home woman, unproductive, deemed purely reactive, emotional or sensual, and almost animal in its instinctive abandon to the text. Opposed to this figure is the masculine, productive, in-control and coherent intellectual.

Even though gender issues certainly determine the ethics and esthetics of representation and immersion, I would like to focus instead on an ecological view of interpretation, which will bring us back to biological aspects of literary reading. In *Against Interpretation*, Susan Sontag reflected upon the conditions of our relation to art, in the context of industrial modernity, writing:

“Like the fumes of the automobile and of heavy industry which befoul the urban atmosphere, the effusion of interpretations of art today poisons our sensibilities. In a culture whose already classical dilemma is the hypertrophy of the intellect at the expense of energy and sensual capability, interpretation is the revenge of the intellect upon art. Even more. It is the revenge of intellect upon the world. To interpret is to impoverish, to deplete the world.” (1964, p. 7)

Interestingly, in this quote, the interpreter is like an industrialist depleting the world, depriving it of its sensual potential. This parallels the controlling, intellectually productive reader who inhibits the emergence of sensorimotor simulations by refusing to surrender to the text, by trying to master it, instead of letting himself be mastered by its representations.

However, how can we cure this excessive activity, this interpretative overproduction? Through literature, of course, but not the literature of progress and competitive growth and evolution but a superfluous literature, an unproductive literature. In *The Pleasure of the Text*, Roland Barthes muses on the economic/ecological role of literary practitioners:

“Why, in a text, all this verbal display? Does luxury of language belong with excessive wealth, wasteful expenditure, total loss? [...] Is today’s writer the residual substitute for the beggar, the monk, the bonze: unproductive, but nevertheless provided for? Analogous to the Buddhist sangha, is the literary community, whatever alibi it uses, supported by a mercantile society, not for what the writer produces (he produces nothing), but for what he consumes? Superfluous, but certainly not useless?” (Barthes, 1975, p. 23)

In a sense, what Barthes is doing here is framing the superfluous pleasure of the reader in an economic and even in an ecosystemic dynamic. If the economy is metabolic, a management of living resources, the writer (but the reader also) indeed occupies a very special place in this dynamic, a place diametrically opposed to that of overproduction. However, this place is not occupied by any reader; it is the place of the surrenderer, of the immersed, embodied reader who loses himself or herself in the text, who does not seek to produce a totalizing interpretation, and who is fluid and receptive, incoherent, and cooperative. Barthes describes this reader as the reader of pleasure:

“Imagine someone (a kind of Monsieur Teste in reverse) who abolishes within himself all barriers, all classes, all exclusions, not by syncretism but by simple discard of that old specter: *logical contradiction*; who mixes every language, even those said to be incompatible; who silently accepts every charge of illogicality, of incongruity; who remains passive in the face of Socratic irony (leading the interlocutor to the supreme disgrace: *self-contradiction*) and legal terrorism (how much penal evidence is based on a psychology of consistency!) Such a man would be the mockery of our society: court, school, asylum, polite conversation would cast him out: who endures contradiction without shame? Now this anti-hero exists: he is the reader of the text at the moment he takes his pleasure.” (Barthes, 1975, p. 3)

With Barthes, we begin to see how this contradictory reader, who becomes whatever the text asks him or her to become, and how this immersive reader can be subversive for the social order, a toxic element in a social body organized around the idea of the liberal subject, productive, and coherent.

In our last quote from Barthes, we see that this reader of pleasure is not an active, competitive interpreter seeking to produce a totalizing meaning, but a receptive, cooperative drifter who lets himself or herself be seduced by the text:

“The pleasure of the text is not necessarily of triumphant, heroic, muscular type. No need to throw out one’s chest. My pleasure can very well take the form of a drift. *Drifting* occurs whenever *I do not respect the whole*, and whenever, by dint of seeming driven about by language’s illusions, seductions, and intimidations, like a cork on the waves, I remain motionless, pivoting on the *intractable* bliss that binds me to the text (to the world). Drifting occurs whenever social language, the sociolect, *fails me* (as we say: *my courage fails me*). Thus another name for drifting would be: *the Intractable* – or perhaps even: Stupidity.” (Barthes, 1975, p. 18)

The reader of pleasure is like a cork on the waves or, to quote William Gass once again, like a gull asleep on the sea. As the reader’s will falls asleep, as enthusiasm takes over and the police goes off duty, the immersive, embodied reader becomes stupid, to use Barthes’s word. In the French text, stupidity is *la Bêtise*, which indeed means stupidity, but is also related to the *bête*, to the animal. If the drifter is *bête*, some kind of animal, he is indeed outside of the sociolect, rejected by the law of self-contradiction and coherence, an unfit citizen of our rationalist, productivist modernity.

5. Embracing Unreasonable Reading

The ecological consequences of the promotion of a more abstract, in-control style of interpretation does not only concern the “fumes which befoul our Earth’s atmosphere” but also the way we relate, or not, with the fellow life forms with whom we share the planet. In *Before the Law*, Cary Wolfe underlines the fact that the ontological opposition between human and animal has traditionally been made on the distinction between response (or we could say, interpretation) and automatic reaction. He writes:

“The juridical distinction between ‘response’ and mere mechanistic or instinctive ‘reaction’ – [is] a distinction that, as Derrida shows, has anchored the ontological hierarchy of human and animal in the philosophical tradition.” (Wolfe, 2012, pp. 63–64)

The human, the rational interpreter, is the subject of the law; he is dignified, valued. Whereas, the surrenderer, the immersed reader, incoherent, a drifter is relegated to the domain of *la Bêtise*, of animality, unable or unwilling to produce totalizing interpretations and preferring the sensual, embodied experience of representation. It may seem paradoxical that the drifter, the reader of pleasure would not interpret the text but still float or immerse himself or herself in a sea of meaning. So where does this meaning come from if not from interpretation?

In his *Philosophical Investigations*, Wittgenstein (2009) says that following the rules of language does not automatically involve interpretation. He writes: “There is an inclination to say: every action according to a rule is an interpretation.

But one should speak of interpretation only when one expression of a rule is substituted for another.” (§ 201) In our case, this would mean that interpretation is needed to only face with a text that seeks to change the rules, an innovative, defamiliarizing text. Indeed, “there is a way of grasping a rule which is *not* an interpretation” (§ 201), interpretations by themselves do not determine meaning (§ 198). Indeed, meaning would come from established usage, customs, habits, and institutions. Language use and the production of meaning are not the prerogative of complex reasoning but are made in instinctual, almost machinic interactions. Understanding is a technique, anchored in practice: “To understand a language means to have mastered a technique” (§ 199). In a way, efficient meaning making is automatic, sensual, and embodied. Wittgenstein (2009) writes: “When I follow the rule, I do not choose. I follow the rule *blindly*” (§ 219). Here, we are in the semiotic regime of the surrenderer, of the reader with his will asleep, of the reactive reader as opposed to the responsive one. The efficacy and power of literature may then reside not only in its intellectual complexity but also in its being part of a vital practice, a form of life where we exist and act in and with language. Literary fiction, then, uses language to make us drift, to allow us to expand our vital experience through embodied simulations.

However, and as we have suggested earlier, such immersive experience of the text, in its abandon of rational control, is not an easy task. In a sense, it demands of the reader an uncommon ability to surrender to artistic representation, in a way adopting the cognitive and bodily openness of which Arthur Rimbaud wrote in his famous letter to Georges Izambart:

“Now, I louse up myself as much as possible. Why? I want to be a poet, and I’m working to make myself a Seer [*Voyant*]: you will not understand at all, and I hardly know how to explain it to you. The point is to arrive at the unknown by the dissoluteness of all the senses [*dérèglement de tous les sens*]. The sufferings are enormous, but one has to be strong, to be born poet, and I have recognized myself to be a poet. It is not my fault at all. It is wrong to say: I think. One ought to say: I am thought [*On me pense*]. – Pardon the pun. – I is someone else.” (Rimbaud, 1871, p. 306, my translation)

Here, Rimbaud adopts the position of the Seer and renounces to the coherent, self-centered, controlling subjectivity. He does not think, he is thought. Like the immersed reader, Rimbaud says, “I am someone else.” However, such surrendering does appear as an easy immersion or a lazy absorption in entertainment or media spectacle. The ability to be affected by a text, to enter a fictional world through an altered state of consciousness where the literary representation is intensified, appears as the power to enter a kind of trance. Western epistemologies are not especially adept at teaching this kind of expertise, and we might turn to “traditional” societies to relearn it. Anthropologist de Heusch (2006,

p. 29) has worked extensively on the subject of trance and distinguishes the trance of possession, which is initiated by exterior factors (a subject is possessed by an entity during a ceremony performed by some kind of priest), and the shamanic trance, which is self-induced, the shaman having acquired, after a long training, the ability to enter an altered state of consciousness where he can explore other worlds and interact with spiritual entities. In a similar manner, we can differentiate the passively receptive reader, possessed by the text almost unwittingly, from the actively receptive reader, the dignified surrenderer, the shamanic explorer of foreign affects and percepts, of fictional universes. This expert immersive reader (which may not exist yet) is able to actualize neural simulations, to intensify them and to experience Rimbaud's dissoluteness of all the senses. This experience can be compared to what Nietzsche (2010) calls the frenzy. He writes: "If there is to be art, if there is to be any esthetic doing and seeing, one physiological condition is indispensable: frenzy. Frenzy must first have enhanced the excitability of the whole machine; else there is no art. All kinds of frenzy, however diversely conditioned, have the strength to accomplish this" (§ 8). This is a very different definition of art from the formalist criterion of defamiliarization. The Dionysian, frenzied art, the art of enthusiasm, does not fit so well in a logic of progress and growth and so presents itself as an alternative to the modern, rationalist paradigm.

6. Immersive Embodied Reading As an Intensification of Neural Representations?

Let us conclude with some speculative remarks on the neurophysiology of immersive reading. As we have seen, illness, sleepiness, belief, enthusiasm, and frenzy are altered states of consciousness that modulate our experience of artistic representations, weakening our ability to think "intelligently," and intensifying our embodied experience of mental representations. However, how is this intensification actuated at the neural level? Would it be possible that it is related to an augmentation in firing frequency in the concerned neural representations? In their article, Gallese and Lakoff (2005, p. 464) evoked the motor behavior of cats, when they are walking, trotting, and galloping. Each type of movement requires its own motor program: when a cat gallops, its forepaws move together, as do its hind paws, but not when it walks or trots. Yet, the three behaviors are controlled by a single network of neurons, the only difference being its firing frequency. Is it possible that the difference between an immersive, embodied experience of representation and a more detached, abstract one is related to the intensity and rhythm of discharge within the associated neuronal representations? We will leave this question to be investigated by more competent minds, but in the end, we see that the "content" of consciousness, the representations, be they artistic, mental,

or neuronal is subjected to variations caused by “states” of consciousness. Much of our efforts, as teachers and scholars, are focused on producing new contents, new concepts, and representations. This production is of course crucial. However, it might be equally worthy to explore and refine our states of consciousness, our openness, and our receptivity to what surrounds us. Maybe then, by having learned to inhabit literary environments, we will be better able to feel our planetary surroundings and share it with our fellow life forms.

Summary

This article explores the relations among three forms of representations (artistic, mental, and neural) and immersion, considered as an altered state of consciousness, in the context of literary reading. We first define immersive reading as an intensification of our embodied experience of literary representation, in accordance to neuropsychological studies about embodied cognition. We further consider the style of interpretation demanded by such immersive reading and its ethical and ecological underpinnings.

Keywords: Representation, immersion, embodied cognition, receptivity, neuroscience, literature, philosophy.

Darstellung und Immersion. Die Verkörperlichte Bedeutung von Literatur.

Zusammenfassung

Dieser Beitrag untersucht die Beziehungen zwischen drei Formen der Darstellung (künstlerisch, mental und neuronal) und der Immersion - betrachtet als veränderter Bewusstseinszustand - im Kontext literarischer Lektüre. Zunächst definieren wir, in Übereinstimmung mit neuropsychologischen Studien über leibliche Wahrnehmung, immersives Lesen als eine Intensivierung unserer körperlichen Erfahrung der literarischen Darstellung. Des weiteren berücksichtigen wir die Art der Interpretation, die ein immersives Lesen erfordert, und seine ethischen und ökologischen Untermauerungen.

Schlüsselwörter: Darstellung, Immersion, verkörperlichte Wahrnehmung, Aufnahmefähigkeit, Neurowissenschaft, Literatur, Philosophie.

References

- Barsalou, L., Barbey, A. K., Simmons, W. K., & Santos, A. (2005). Embodiment in religious knowledge. *Journal of Cognition and Culture*, 5(1–2), 14–57.
- Barthes, R. (1975). *The pleasure of the text*. Transl. Richard Miller. New York, NY: Farrar, Straus and Giroux.
- Baudrillard, J. (1981). *Simulacres et simulation*. Paris, France: Galilée.
- Boulenger, V., Hauk, O., & Pulvermüller, F. (2009). Grasping ideas with the motor system: Semantic somatotopy in idiom comprehension. *Cerebral Cortex*, 19, 1905–1914.
- Bloom, K. G. (2003). Ladies reading and writing: Eighteenth-Century women writers and the gendering of critical discourse. *Modern Language Studies*, 33(1/2), 60–72.
- Calvo-Merino, B., Grèzes, J., Glaser, D. E., Passingham, R. E., & Haggard, P. (2006). Seeing or doing? Influence of visual and motor familiarity in action observation. *Current Biology*, 16, 1905–1910.
- Coleridge, S. T. (2013 [1817]). *Biographia Literaria*. Project Gutenberg. Retrieved from <http://www.gutenberg.org/ebooks/6081>.
- Curtis, R. (2014). An introduction to *Einführung*. *Art in Translation*, 6(4), 353–376.

- Decety, J., Jeannerod, M., Germain, M., & Pastene, J. (1991). Vegetative response during imagined movement is proportional to mental effort. *Behavioral Brain Research*, 42(1), 1–5.
- Eno, B. (2011). Composers as Gardeners. *Edge.org*. Retrieved from <http://edge.org/conversation/composers-as-gardeners>.
- Gallese, V., & Lakoff, G. (2005). The Brain's concepts: The role of the sensory-motor system in conceptual knowledge. *Cognitive Neuropsychology*, 22(3–4), 455–479.
- Garbarini, F., & Adenzato, M. (2004). At the root of embodied cognition: Cognitive science meets neurophysiology. *Brain and Cognition*, 56(1), 100–106.
- Gass, W. H. (1970). *Fiction and the figures of life*. New York, NY: Knopf.
- Gu, X., & Han, S. (2007). Attention and reality constraints on the neural processes of empathy for pain. *NeuroImage*, 36(1), 256–267.
- de Heusch, L. (2006). *La Transe et ses entours*. Bruxelles, Belgium: Éditions Complexe.
- Jacobson, E. (1927). Action currents from muscular contractions during conscious processes. *Science*, 66, 403.
- Lipps, Th (1903-1906). *Ästhetik. Psychologie des Schönen und der Kunst*. Hambourg/Leipzig, Germany: Leopold Voss.
- Melzack, R., & Katz, J. (2006). Pain in the 21st century: The neuromatrix and beyond. In G. Young (Ed.), *Psychological knowledge in court: Ptsd, pain and Tbi* (pp. 129–148). New York, NY: Springer.
- Merleau-Ponty, M. (2005 [1945]). *Phenomenology of perception*, transl. Colin Smith. London, England: Routledge.
- Murray, J. (1997). *Hamlet on the Holodeck: The future of narrative in cyberspace*. Cambridge, MA: MIT Press.
- Nietzsche, F. (2010 [1895]). *Twilight of the Idols*. Transl. W. Kaufmann & R. J. Hollingdale. Handprint online editions. Retrieved from www.handprint.com.
- Rimbaud, A. (1958 [1871]). Lettre à George Izambard – 13 mai 1871. *Œuvres* (pp. 305–306). Paris, France: Mercure de France.
- Shklovsky, V. (2015 [1917]). Art, as Device, transl. Alexandra Berlina. *Poetics Today*, 36(3), 151–174.
- Singer, T., Seymour, B., O'Doherty, J. P., Klaas, E. S., Dolan, R. J., & Frith, C. D. (2006). Empathic neural responses are modulated by the perceived fairness of others. *Nature*, 439(7075), 466–469.
- Sontag, S. (1964). *Against interpretation*. In *Against interpretation and other essays*. New York, NY: Delta Books, pp. 3–14.
- Tolkien, J. R. R. (1965). *Tree and leaf*. Boston, MA: Houghton Mifflin Company.
- Vischer, R. (1873). *Über das optische Formgefühl. Ein Beitrag zur Ästhetik*. Leipzig, Germany: Hermann Credner.
- Wallace, D. F. (2006 [1996]). *Infinite Jest*. New York, NY: Back Bay Books/Little, Brown and Company.
- Wittgenstein, L. (2009 [1953]). *Philosophical investigations*. Chichester, England: Wiley-Blackwell.
- Wolfe, C. (2012). *Before the law: Humans and other animals in a biopolitical frame*. Chicago, IL: University of Chicago Press.
- Woolf, V. (2002 [1926]). *On being Ill*. Ashfield, MA: Paris Press.
- Zeki, S., & Lamb, M. S. (1994). The neurology of kinetic art. *Brain: A Journal of Neurology*, 117, 607–636.
- Zeki, S. (1999). Art and the brain. *Daedalus*, 127(2), 71–103.

Pierre-Louis Patoine is an assistant professor of American literature at Sorbonne Nouvelle University and the author of a book on the role of the empathic and physiological body in the experience of reading (*Corps/texte*, ENS Editions, 2015). He has published articles on contemporary American literature, biosemiotics, and literary neuroesthetics; he is a co-editor of the online journal *Epistemocritique* (epistemocritique.org) and a co-director of the Science/Literature research group (hypotheses.litorg.org).

Address: Sorbonne Nouvelle University, 15 rue des Marguettes, 75012 Paris, France.

Email: pierre-louis.patoine@sorbonne-nouvelle.fr