Mental imagery is a phenomenon that colours our everyday life, from recollecting the past to planning the future, to daydreaming and enjoying narratives. It is also a key notion in many debates among philosophers, cognitive scientists, and literary theorists. Still, research on the nature of mental imagery is far from being exhausted. Anežka Kuzmičová’s dissertation, *Mental Imagery in the Experience of Literary Narrative: Views from Embodied Cognition*, is a further step in this direction. Kuzmičová aims at bridging two once separate contemporary debates about mental imagery: the debates in literary theory and in cognitive science. As Kuzmičová highlights, in both domains the interest in mental imagery has recently been brought back to the fore after a period of neglect, and a field of research that combines both approaches has subsequently grown.

The research in cognitive science Kuzmičová refers to is so-called ‘embodied cognition’, according to which human cognition (including perceptual experiences, learning, reasoning, conceptual categorization) is shaped by the body and its environment. Kuzmičová focuses her attention on two important and well-known steps in the development of this research programme: the discovery of ‘mirror neurons’ and the discovery of the activation of sensorimotor brain areas in language comprehension. These discoveries have gained great popularity among literary theorists and have led to the redefinition of literary narratives in terms of social cognition and of simulative processes (for example, as involving a kind of empathy).

Kuzmičová claims that this growing popularity has left in the dark problems concerning the study of mental imagery. First, generally speaking, research in embodied cognition seems to take mental imagery as an *explanans* more than an *explanandum*. Second, in the literature there is a tendency to pay close attention to sensory imagery (in particular, visual) and almost no attention to verbal (that is, linguistic or propositional) imagery. Kuzmičová calls this ‘the referential bias’. According to her, this bias is due to an exclusive focus on the fact that while reading a sentence such as ‘He picked up his English workbook’ we tend to simulate in our mind (at least unconsciously) the situation which the sentence refers to. Recent studies have shown, however, that silent reading and listening to speech involve simulative processes of the verbal components too (for example, the activation, respectively, of the auditory cortex and of the tongue muscles).

Third, the literature is not always clear on the relationship between the sub-personal and the personal levels (what Kuzmičová calls the ‘consciousness problem’). The phenomenon of mental imagery that we enjoy when we read...
a literary narrative comes at the second level, whereas the activation of mirror neurons or of the sensorimotor cortex belongs to the first level. But, then, how can non-conscious data provide insight into a conscious experience?

Kuzmičová maintains that the consciousness problem is not a real problem when non-conscious data support conscious phenomena that are independently motivated by introspective observations or theoretical arguments or both. This is why she feels warranted to use the data issued from cognitive science in tackling the question of the role of mental imagery in literary narrative. Moreover, the goal of her dissertation is twofold. On the one hand, she wants to make mental imagery a proper topic of study (independent from other, though perhaps correlated, phenomena, such as emotions and empathy). On the other hand, she wants to go beyond the visual domain in exploring this phenomenon. Hence, Kuzmičová’s analysis of mental imagery tries to avoid the three aforementioned problems.

In the first chapter, Kuzmičová supplies the reader with several definitions necessary in order to get into her argumentation, for instance, what she takes to be literary, narrative, poetry, and prose. Most important, she makes it clear that she is interested in what she calls ‘readerly mental imagery’, that is, a sensory-like phenomenon prompted by the given narrative. More precisely, readerly mental images represent what the given narrative is about (or what the reader understands it to be).

Although reading a novel can be a fairly private experience, we allow ourselves to be transported into a fictional world built by someone else. Thus, our capacity for imagining is guided, and it is not entirely at our service, as when we indulge in private reveries. Here the philosophical reader might think of what Kendall Walton calls ‘social imagination’.1 Kuzmičová, however, prefers to avoid the term ‘imagination’, insofar as it is more general than ‘mental imagery’. It is common to consider mental imagery imagination or at least a type of imagination (namely, sensory or perception-like imagination). Still, the link between these two mental phenomena is an open question. Indeed, some philosophers have suggested that mental imagery is not a kind of imagination2 and it might even be argued that mental imagery is not essential to sensory imagination itself. Kuzmičová does not take part in this debate, but she seems to suggest that mental imagery cannot be seen as a type of imagination to the extent that imagination is generally defined in propositional terms. pace Kuzmičová, among philosophers it is commonly acknowledged that the content of our imaginings can be either

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propositional or non-propositional, which typically leads to distinguishing two types of imagination.\textsuperscript{3} Much work therefore needs to be done in order to clarify the relationship between mental imagery and imagination.

Kuzmičová deals with a variety of mental images. More precisely, she distinguishes four prototypical types of mental imagery: (1) enactment imagery, (2) description imagery, (3) speech imagery, and (4) rehearsal imagery. While (1) and (2) belong to the referential domain, (3) and (4) fit into the verbal domain. Kuzmičová defines the referential domain as akin to perception and the verbal domain as propositional in nature and more akin to conscious conceptual thought, given that both share a verbal format. I have, however, some philosophical worries about this way of carving out these domains. First, the question of the (non-) propositional content of perception and perception-like phenomena (for example, episodic memory, sensory imagery) is far from being settled.\textsuperscript{4} Moreover, Kuzmičová herself, as it will be clearer below, describes (3) and (4) as akin to audition (and thus, at least minimally, to perception). In a more helpful way, she clarifies the referential-verbal contrast by stating that only in the verbal domain the linguistic medium of the literary narrative accesses the reader’s awareness (specifically as audible discourse) in such a manner as to remind the reader of the story-world’s artificiality. The referential domain fosters the reader’s engagement with the story-world, and thus does not encourage the grasping of artificiality.

A reader having imagery of the enactment sort puts herself in the shoes of the character having the experience referred to in the narrative. For instance, a narrative about a girl swimming in the ocean can prompt the reader to feel as if she were swimming, that is, to undergo a complex vicarious experience of swimming from the first-person point of view (an inner stance is taken). Such an experience can be variably rich and involve the re-enactment of one or more external senses (for example, the reader can visualize the ocean floor, feel the cold, and taste the salt), but also some internal senses (for example, the reader can have the vicarious proprioceptive experience of the tug of the current and of her body tossed around), without necessarily involving the sense of agency (for example, the reader does not need to feel herself swimming). In a nutshell, enactment imagery is defined as strongly mimicking perception – broadly defined as encompassing both external and internal senses (as Kuzmičová makes


\textsuperscript{4} For example, Tim Crane, ‘Is Perception a Propositional Attitude?’, \textit{Philosophical Quarterly} 59 (2009): 452–69.
clear in Chapter 2, which is devoted to the understanding of this specific imagery variety and of the non-conscious motor processes underlying it).

Kuzmičová also characterizes enactment imagery as spontaneous, quite effortless at the cognitive level and transparent (that is, it does not break the flow of reading). She examines the types of contents and narrative strategies that are most likely to prompt images of the enactment sort. On the basis of cognitive research, Kuzmičová argues that when object-directed movements of an explicit or implicit character are described, the sensorimotor brain areas of the reader are expected to be activated. When literary, rather than non-literary, narratives are at stake, such a process is bound to cross the threshold of consciousness and the reader herself is prone to consciously experience enactment imagery. Both non-conscious simulative processes and the conscious experience of enactment images concur in projecting the reader into the fictional world, giving rise to the effect of ‘presence’ (in Kuzmičová’s terminology) and thus enhancing the immersion of the reader into the narrative. Here Kuzmičová runs against the widespread idea that the more detailed descriptions of (familiar) objects or spatial configurations there are, the more presence you feel. By means of several examples mainly from francophone novelists known to deal with everyday situations in an evocative way (for example, Flaubert and Robbe-Grillet), Kuzmičová claims that literary narratives which succeed in balancing merely descriptive elements with references to object-directed movements are those which keep the sense of presence continuously and instantaneously alive. In other words, presence correlates with enactment imagery rather than with description imagery.

A reader having imagery of the description sort is comparable to a detached witness of the scene depicted in the narrative. For instance, a narrative about a girl swimming in the ocean can prompt the reader to visualize the girl swimming, that is, to undergo a vicarious perceptual experience of such a scene from a third-person point of view (an outer stance is taken). Compared to enactment imagery, description imagery is experientially less rich: no internal sense is re-enacted and, among the external senses, only vision is. Description imagery is thus characterized as poorly mimicking perception (if at all), not spontaneous, cognitively effortful and not transparent. This does not mean, as Kuzmičová stresses, that description images are pale versions of enactment images. These kinds of imagery are essentially different and have different grounds, respectively imageability and experientiality. For this reason, Kuzmičová considers description images as picture-like (insofar as they are static and have canonical spatial orientation) and finds commonalities with voluntary visual images (both are expected, feeble, and finite).
Description imagery is typically prompted by accurate descriptions of (manufactured inanimate) objects of daily use or spatial configurations without any reference to the action or interaction of a character. In Chapter 3, Kuzmičová focuses on the power of visual descriptions to evoke description imagery, albeit allowing either that other types of descriptions (for example, non-visual still sensory and non-sensory) can prompt the same kind of imagery or that visual descriptions can give rise to other processes than description images (for example, focusing on the verbal medium). Moreover, she tries to individuate visual aspects (for example, colour and surface details) and other features (for example, expected/unexpected content) that make a visual description more or less imageable – thus accordingly enhancing description imagery.

A reader having imagery of the speech sort is comparable to a pretended listener of what is said in the narrative. For instance, a narrative in which a character utters the sentence P (for example, ‘What did you do, Devil?’) can prompt the reader to ‘hear’ the character saying P, that is, to undergo a vicarious auditory experience of the given P as uttered in a specific way. Very often this sort of imagery can be accompanied by description images (for instance, I can visualize the character who is speaking). According to Kuzmičová, the two types of imagery have in common several features: both are not transparent and involve an outer stance (the reader is a witness, not an actor). Like enactment imagery, however, speech imagery is spontaneous and quite effortless at the cognitive level.

A reader having imagery of the rehearsal sort is comparable to a pretended speaker of what is said in the narrative. For instance, a narrative in which a character utters the sentence P can prompt the reader to ‘say’ P as if she were the speaking character, that is, to undergo a vicarious auditory and kinaesthetic experience of uttering the given P (strictly speaking the kinaesthetic component of rehearsal imagery is real, not imaged). Hence, contrary to speech imagery and similarly to enactment imagery, in rehearsal imagery the reader takes an inner stance. Kuzmičová also characterizes rehearsal imagery as not spontaneous, cognitively effortful and not transparent.

Nevertheless, both speech and rehearsal images should not be confused with referential images; they belong to the verbal domain, insofar as they represent the language and the sound of given utterances and are grounded, at the cognitive level, in non-conscious mental auditory processes occurring with auditory cortical activation. According to Kuzmičová, verbal images are also tied to proper dynamics and to narrative cues, which in turn help the further characterization of the two verbal kinds (for instance, in Chapter 4 ‘awareness of narrative quantity’ emerges as a necessary condition of rehearsal imagery). Finally, Kuzmičová argues that the features proper to speech imagery make it more apt than rehearsal
imagery to boost the reader’s conscious comprehension of the narrative while reading.

Kuzmičová’s dissertation aims at singling out the aforementioned four prototypical varieties of mental imagery by means of introspective reports, literary theories, and empirical support from cognitive science. These varieties are conceived, however, as a continuum, thus allowing for gradual transitions and in-between imagery varieties. Moreover, although she is mainly interested in the experience of literary narrative, Kuzmičová foresees some implications of her framework for the study of other literary styles (for example, poetry).

Kuzmičová’s taxonomy, however, could be more fine-grained. For instance, what is blurred in her enactment/description dichotomy is, on the one hand, the question of what self is involved in readerly mental imagery (namely, whether it is the reader’s self, a character’s self, a pure counterfactual self, or no self at all), and, on the other hand, how the relevant self can figure in our mental images (in a first-person or third-person perspective). These two separate questions would then potentially lead to single out four types of referential mental imagery rather than two.5

Another dimension that might encourage further refinement of Kuzmičová’s taxonomy is the distinction between external senses (such as vision and hearing) and internal senses (like proprioception and kinaesthesis). Kuzmičová herself acknowledges such a distinction, but does not exploit it in order to individuate basic types of mental imagery. Indeed, while both description and speech images are purely external-like, enactment images seem to involve a blend of internal-like and external-like components (similarly for rehearsal images, though this matter is more complicated, since Kuzmičová seems to give more weight to the kinaesthetic component, which for this type of image is real rather than imaged). Kuzmičová’s dissertation thus lacks a proper analysis of pure internal-like mental images.

Notwithstanding some of the foregoing critical remarks, this is an interesting and well-informed inquiry into the role of mental imagery in the reading of literary narrative.

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