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What we 'see' when we read: Visualization and vividness in reading fictional narratives

Renate Brosch

University of Stuttgart, Anglistik, Keplerstrasse 17, 70174 Stuttgart, Germany

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ABSTRACT

Visualization is defined as the production of mental images in the process of reading (Esrock 2005: 633). This article is concerned with varieties of visualization during an absorbing reading of a fictional narrative, the mental images that range from an indistinct and largely automatic default visualization to the much more vivid images that occur at significant stages in the narrative. Neuroscientific studies of vision have collected a large and impressively varied body of experimental evidence for two major processing streams - the dorsal and the ventral-specialized for vision-for-action and vision for-perception respectively. Further experiments distinguish different dispositional specializations: visualizers with a high spatial visualizing ability demonstrating a more efficient use of resources in the dorsal pathway, and those with a high object visualization and more efficient use of the ventral pathway (Kozhevnikov et al., 2010: 29). We can assume that both types of mental processing will be prompted in fictional narratives with differences in prominence depending on their authors' inclinations and the design and purpose of the narrative text. According to Amedeo D'Angiulli (2013: 7), who conducted elaborate tests of vividness in mental imagery using written descriptive passages as stimulus, dynamic imagery was significantly less vivid than static imagery. These results confirm traditional literary criticism based on introspection which argues that detailed description of static objects elicits an especially lively imagination. However, narratives can provoke even stronger visualizations by rendering subjective moments of seeing in which a fictional character is emotionally involved. In encouraging readers to shift now and then from the default mode of motion-oriented visualizing to a more affective and more conscious object visualization, literary fictions exercise their power to evoke imaginings that one would not generate by oneself. This may indicate that literary narratives can prove a training ground for expanding one's visualizing capacities.

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In this article I want to investigate the contribution of mental imagery to the processing of narrative fictions. Although all we actually see are black marks on a page or screen, we can experience a wealth and complexity of images when immersed in a fictional narrative. This discrepancy between experiential richness and paucity of visual content is a remarkable phenomenon that can be better understood through the insights gained in neuroscientific research on







E-mail address: renate.brosch@ilw.uni-stuttgart.de. http://dx.doi.org/10.1016/j.cortex.2017.08.020 0010-9452/© 2017 Elsevier Ltd. All rights reserved.

visual perception and mental imagery. In the flourishing field of cognitive literary studies only a small number of scholars have been devoted the related phenomenon of visualization. Visualization is defined as the production of mental images in the process of reading in the Routledge Encyclopedia of Narrative Theory (Esrock, 2005, p. 633). Hence, it represents a subset of "mental images/imagery", terms normally used in neuroscientific studies for any kind of visual imagining, usually of controlled, deliberately elicited images that are not part of the actual visual field. I will try to elucidate readerly visualization with the help of findings from neuroscience, hoping to clarify what distinguishes visualization from both mental imagery and actual perception. Though my attempt is speculative and uses only a small segment of what is currently being unravelled with the help of fMRI and other experimental methodologies, it may prove useful for future cognitive literary studies.

In a book not based on cognitive research, but on introspection, Elaine Scarry identifies visualization as a special case in mental imagery, observing that the images which reading generates surpass ordinary imaginings in vivacity, solidity and spontaneity. She asks why it is that visual imaginings without textual instructions are usually faint and fleeting, while the images of what we 'see' with our 'inner eye' during reading can be extraordinarily vivid and affecting (Scarry, 2001, p. 33). I will draw on and apply studies of vividness in mental imagery in an attempt to answer the questions, what triggers visualizations during reading and when the images accompanying our reading become especially vivid. It is obvious that an extended reading process does not maintain a steady level of visual imagery.¹ Rather, visualizations reach varying levels of intensity which could be located on a scalar continuum ranging from an automatic, but indistinct default visualization to intensive, highlighted and vivid images occurring intermittently. I propose that a lowlevel visualization is generated effortlessly when familiar embodied experiences and cultural schemata are evoked. More vivid imaginings depend to a significant extent on textual triggers in the narrative. Some of these narrative devices demand close attention to the text, some take the reader by surprise. Vivid visualization due to increased attention occurs mainly in descriptive passages when the reader is cued by the narrative to shift from action- and movement-oriented visualization to object- and description-oriented visualization. Further along the continuum of increasing vividness are descriptions of subjective, highly emotional perceptions which often transmit themselves to the reader's visual imagination without conscious concentration. In sum, the key ideas this article offers beyond existing cognitive literary research are

twofold: firstly, visualization is easily and smoothly effected when a dynamic narrative confirms prior knowledge and cultural schemata; secondly, visualization is vivid and intense when mental images shift from action vision mode to object vision mode, following the attentive gaze of an emotionally involved fictional character.

Since visualizations are part of the reader's experience, many scholars in literary studies have reservations against generalizing what they regard as a highly personal and subjective matter, although it is recognized that readers of fiction can become oblivious of their surroundings and completely absorbed in the narrative. The sense that readers often have of being 'lost in a book' is an elusive phenomenon that has been researched under various categories, such as involvement (Tal-Or & Cohen, 2010), transportation (Gerrig, 1993), aesthetic illusion (Wolf, 2013), entrancement (Nell, 1988), persuasion (Green, Carst, & Brock, 2004), immersion (Ryan, 2001), fictional recentering (Ryan, 1991), and presence effect (Kuzmičová, 2012). My discussion of visualization relies on the three lastnamed studies, which employ a cognitive approach, considering the processing of narrative fiction as embodied and enactive. The terms "presence effect" and "fictional recentering" describe the illusion of imagining oneself within the fictional story world. Part of this readerly immersion in the fictional story world is visualization, but the illusion of presence is not restricted to visual mental imagery. Rather, what readers experience is multi-modal, depending on mental representations, simulations and resonances as complex, interactive processes that can be grounded in any sensory modality, deploying the external and the internal senses as well as movement-related proprioception (Kuzmičová, 2014, p. 277). In concentrating on the visual part of the experience, I am necessarily neglecting these other sensory data and also leaving aside the question of difference in individual preferences regarding a visual or a verbal processing of fictional narratives.²

1. Visualization between vision and mental imagery

A major problem in discussing these reception processes lies in the very concept of visualization. At first glance, it seems determined by the tension between what is largely a passive reception and an effortful creation, a phenomenon between actual vision and mental imagining: like vision, it is not the result of an intrinsic activity of the brain but a response to outside stimulus, and like mental imagery, it is not just a passive register but an attention-dependent activity. Some scholars insist on a clear demarcation between seeing and imagining, emphasizing that mental imagery is neither fully developed nor dense and saturated compared to actual vision which yields a continuous and detailed image of the world. For instance, McGinn (2004, pp. 26–30) is adamant that imagining should not be compared to seeing but rather to thinking. He lists differences between percepts and imaginations

¹ As a literary scholar, I am best qualified to investigate the textual triggers for visualization. Consequently, I make generalizations that necessarily neglect the variety of individual responses to fictional narratives. Though individual predispositions towards imagery are known to differ significantly, my conclusions are meant to capture imagery cues in narrative structures operating, in full or in part, across these differences. This is supported by the wide consensus in literary criticism about which passages in certain novels elicit peak visual experiences on the basis of guiding narrative and poetic devices (cf. Kuzmičová, 2014, p. 275).

² Zeman et al., p. 6 and p. 9 provides an idea of the distribution of the abilities to visualize from aphantasia to high scores in vivid imagining.

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