What we ‚see' when reading literary narratives: default visualization and vivid images

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Visualization

is defined as the production of mental images in the process of reading (Esrock 2005: 633).

has different degrees of intensity during an absorbing reading of a novel

Default Visualization and Vivid Images

“default visualization”

is the automatic and ongoing visualization that accompanies reading

in between passive reception and intrinsic mental activity

stand-out quality of certain highlighted and memorable images in the reading experience (Starr 2015: 251, Bortolussi and Dixon 2013)

Question

Do these different intensities in visualization correlate with the division of labour between

- two visual pathways specialized for different modes of vision and mental imagining – the dorsal and the ventral - and with their specialities - object vision and action vision?

Milner, David and Melvyn Goodale (1995). *The Visual Brain in Action,* (Oxford; Oxford UP).

Two different types of visualizers

- the ones who have high spatial visualizing ability demonstrating a more efficient use of resources in the dorsal pathway, particularly in the right parietal cortex, on the one hand

- and those with a high object visualization ability with more efficient use of object processing resources in the ventral pathway, particularly in the lateral occipital complex, on the other (Kozhevnikov et al. 2010: 29).

There were no participants in their study groups who excelled in both spatial ability and in object visualization.

Kozhevnikov, Maria, Olesya Blazhenkova, and Michael Becker (2010). “Trade-off in Object versus Spatial Visualization Abilities: Restriction in the Development of visual-Procesing Resources,” in *Psychonomic Bulletin & Review* 17.1: 29-35.

Kozhevnikov, Maria, Stephen Kosslyn and Jennifer Shephard (2005). “Spatial Versus Object Visualizers: A New Characterization of Visual Cogntive Style”, *Memory and Cognition* 33.4: 710-26.

Default visualization is different from actual vision

Compared to actual vision mental imagery is neither fully developed nor dense and saturated. It is diffuse and lacking in concreteness

Wolfgang Iser (1978: 148, 150) describes the images produced in the reading process as an ongoing “passive synthesis”.

Peter Schwenger notes the “coarse organization” with “one or two details” and claims that visualization reaches the “2 ½ D stage” at most (Schwenger 1999: 63-64)

differs from everyday perception in prompting readers to imagine a wealth of promise without need for “concretisation” (Ingarden; Iser)

Default visualization is different from mental imagery

it differs from mental images without textual stimulus in concealing its ‘optical poverty’ or incompleteness

transience and indeterminacy are not a failure but an advantage, ensuring adaptability

default visualization allows constant transformation of images in the short term memory

Default visualization is preferentially dynamic and spatial

reading a novel means unconscious somatic transfer of sense experience – binding oneself into the storyworld

Both attributes - the indeterminacy and the experiential embodied quality – suggest that default visualization involves “fictional recentering” that must be processed preferably by the dorsal stream for action vision (Ryan 2001).

Because the spatial mode of visualizing deals better with dynamic images, it must be dominant during the default mode of automatic text processing.

Arresting the Dynamics of Visualization

In processing a literary narrative, readers are not completely at liberty to choose which mode of visualization they prefer to employ. Textual devices direct their response towards one or the other.

Given that narratives typically alternate between more and less dynamic modes of telling, action-oriented visualization attuned to the dynamism inherent in narrative's temporal succession and change of events must occasionally alternate with object visualization.

When do Vivid Images Occur?

D'Angiulli, Amedeo et al. (2013). "Vividness of visual imagery and incidental recall of verbal cues when phenomenological availability reflects long-term memory accessibility," in *Frontiers in Psychology* 4: 1-17.

found two factors that determine vividness in mental imagery which can be applied to visualization while reading:

one is the observation that relatively static (or at least slowed down) images are clearer and better visualizable than fast moving ones

(and the other is the finding that mental images that emerge rapidly and effortlessly are more vivid).

Object Visualization

examples of extraordinarily vivid images given by literary scholars are typically of subjective, character oriented perception that is described as close attention (Scarry 2001; Auyoung 2015; Starr 2015; Otis 2015)

Elaine Scarry claims that the most intense visualizations occur in processing the visual perceptions of fictional characters, when what comes to be imitated is not only the sensory outcome but the “deep structure of production” that gave rise to the perception (Scarry 1996:161).

Literary Example

“She looked as if she was not attending to the conversation, but solely busy with the tea-cups, among which her round ivory hands moved with pretty, noiseless daintiness. She had a bracelet on one taper arm, which would fall down over her round wrist. Mr. Thornton watched the replacing of this troublesome ornament with far more attention than he listened to her father. It seemed as if it fascinated him to see her push it up impatiently, until it tightened her soft flesh, and then to mark the loosening – the fall […] She handed him his cup of tea with the proud air of an unwilling slave; but her eye caught the moment when he was ready for another cup; and he almost longed to ask her to do for him what he saw her compelled to do for her father, who took her little finger and thumb in his masculine hand, and made them serve as sugar-thongs.” (Elizabeth Gaskell. *North and South*. 2008: 78-79.)

The example shows that the textual strategies involve a slow-down of action and a narrowing of focus to induce a visualization that is akin to the neuroscientific concept of “descriptive vision” (see Clark 2008: 10).

Using the term “descriptive vision” for object visualization, Andy Clark claims that descriptive vision is “epistemically pregnant”, occasioning a kind of conscious seeing “that presents the visual world in ways that are apt for reasoning about the world” (Clark 2008: 10).

Clark, Andy (2008). “Perception, Action, and Experience: Unravelling the Golden Braid,” in *Neuropsychologia* 47.6: 1460–68, online 1-54, accessed June 2015.

Visualization Preferences

Kozhevnikov et al. found that the two processing modes – though distinct – are not entirely independent since both rely on common attentional resources (2010: 29).

Rather, there is a “trade-off” between the two capacities, since both depend crucially on visual attention (Kozhevnikov et al. 2010: 34).

Though most tasks can be accomplished equally using either sort of visualizing, object and spatial, the overall limited capacity for visual attention makes people maintain their preferences: either spatial or object processing abilities (Kozhevnikov et al. 2010: 34).

preference is not destiny

The results of Kozhevnikov (2005: 723) indicate that people can be trained to use their less preferred visualization strategy.

Laura Otis's interviews also showed that readers are willing and curious to test other modes of imagining

Otis, Laura. 2015 "The Value of Qualitative Research for Cognitive Literary Studies," in *The Oxford Handbook of Cognitive Literary Studies*, edited by Lisa Zunshine, 505-524 (Oxford; Oxford University Press Inc, 520.

It will perhaps be substantiated by future research, that literary narratives can prove a training ground for expanding one's capacities by inviting readers to employ both kinds of visualizing ability.

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