

Image-text relations in online science popularization:

A critical multimodal analysis of newscientist.com

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The aim of science popularization is to draw non-scientific audiences to science-related reporting, which can be achieved by constructing science-related news items as newsworthy. According to Bednarek and Caple (2012), newsworthiness is not so much intrinsic to reported events or relative to audiences' agendas, but it can be strategically projected in discourse by means of linguistic and visual resources that represent an event as e.g., more negative, consequential, extreme, relevant, unexpected, etc. than might be the case (cf. Molek-Kozakowska, 2013). Significantly, "such a discursive perspective allows researchers to systematically examine how particular events are construed as newsworthy, what values are emphasized in news stories, and how language and image establish events as more or less newsworthy" (Bednarek & Caple, 2012: 80).

This study is part of a larger project on popular science reporting devoted to a critical analysis of discursive properties of the online version of the international science magazine *New Scientist*. In accordance with the conference theme and the multimodal session's subject area, I focus on how the conceptualization, relevance and newsworthiness of scientific research *is constructed* in multimodal ensembles (Kress, 2003). Using the toolkit of multimodal discourse analysis (Jewitt & van Leeuwen, 2000; Kress & van Leeuwen, 1996; 2001; Machin, 2008; Machin & Mayr, 2012), I examine the relations between the linguistic properties of headlines, leads and captions and the visual features of accompanying images in a sample of 400 *New Scientist's* articles ranked as most-read and related to biotechnology and medicine that were collected between October 2013 and December 2014.

The quantitative analysis aims to determine the frequency and distribution of selected properties of visual images, namely their relation to the text (illustration, anchorage, rely), the salient aspects of iconography (participants, processes, circumstances), the typical aspects of layout (composition, colour, modality, metaphor), and the attributed function of the image (evidential, evaluative, iconic, aesthetic, sensational), basing on the scientific, artistic, naturalistic or pop-cultural provenance of *New Scientist's* imaginaries. The qualitative analysis specifies predominant types of image-text relations and refers them to discursive dimensions of popularization articles. The task is to capture the type of meaning relation between the image and the headline, the image and the caption and the image and the lead (elaboration, extension, enhancement), and to interpret what kinds of representations of the scientific issues are being instantiated and what are the possible cumulative effects of such representations.

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