Colour Associations of the Russian People

Yulia A. Griber1, Ivar Jung2

1University of Smolensk, RUSSIA; 2Linnaeus University, SWEDEN

Colour in culture

Various cultures make their own associations with colour. Numerous studies have demonstrated cultural differences in colour meanings and associations (Gage, 1993, 1999; Serov, 2004; Hebestreit, 2007; Thurn, 2007; O’Connor, 2015). However, prior research prevalently focused on associations with basic colour concepts, and only few studies have assessed the meaning of individual colour shades. The aim of this research is to continue the study of the cultural specificity of colour associations and to investigate if there are distinctive patterns in how Russian people subconsciously respond to colour with different degrees of lightness, saturation and hue.

Particular design feature of this study allow us:
• to determine frequency of occurrence of associations to colour stimuli;
• to estimate the number of associated terms;
• to measure intensity of associations;
• to specify hue, lightness and saturation of shades forming colour associations;
• to visualize chromatic images related to the anthropologically relevant concepts in Russian culture.

Participants

70 participants (51 females and 19 males) with a mean age of 25 years (ranging from 16 to 60) without any known colour vision defects, who were born and reside in Russia, completed the survey in Russian. The experiment was conducted with each participant individually.

Procedure

Experiment participants were presented 12 pairs of opposites: warm-cold, sorrow-happiness, calm-upset, near-distant, young-old, feminine-masculine, fast-slow, strong-weak, false-true, cheap-expensive, friendly-dangerous, me-others (Fig. 1). The stimulus words were selected from previous research on colour associations (e.g.: Madden, Hewett, and Roth, 2000). The participants were asked to match each word with only one colour sample from a chart.

Colour stimuli

To collect the data, we have designed a colour chart with 27 selected shades specified in the Natural Color System (Fig. 2). The colour chart included three shades of every NCS elementary colour (Y, R, B, G) and every secondary colour (Y50R, R50S, B50G, G50Y). The first shade was the most saturated colour, the second one was a dark shade, and the third one was a light shade for each of those eight elementary and secondary colours. Additionally, we included black, grey and white into the chart (Tab. 1).

Colour stimuli were presented all at the same time against the neutral mid-grey background under standard daylight illumination.

Matrix of responses

The collocation of 24 terms and 27 colour samples composes a 648-cell matrix. The 1680 samples (Jung, 2016) (Fig. 3).

The outcome for the Russian sample was compared to Swedish (N=70) and Nepalese (N=77) samples (Jung, 2016) (Fig. 3).

The results showed unique colour associations among the Russians especially for the pairs feminine-masculine, young-old, and friendly-dangerous (Fig. 4).

Intensity of associations

Colour associations had different intensities. The highest intensity of associations was revealed for pink (A4) with feminine (41%), red (B4) with upset (36%) and dangerous (34%), orange (B3) and yellow (B2) with happiness (31 and 30% respectively).

The lowest intensity of associated notions (<10%) had dark-red (C4), dark-violet (C3), saturated blue-green (B7), dark-blue-green (C7), saturated green (B8), and dark-green (C8). The words slow, false, me, and others did not have particular associated colours.

Validation of the experimental methodology

To validate the experimental methodology, we compared the core associations revealed in the present study to those obtained in previous studies (e.g.: Alymov, 2007; Othriciaga, 2012).

Conclusions

The purpose of the present study was to specify the colour associations of the Russian people and to ascertain their denotive consistency. As denotata, samples of the Natural Color System were used. The experiment provided the following findings:
• We were able to specify hue, lightness and saturation of shades forming colour associations and to visualize chromatic images related to the anthropologically relevant concepts in Russian culture.
• Colour shades carry various associations with varying intensities.
• Colours are not related to one specific term or vice versa.
• Colour associations differ in their denotive consistency according to the subjects’ sex, age, occupation, and religion.
• The research described here is foremost exploratory. The revealed meanings associated with specific colours provide a conceptual framework for further research. The experimental method, its procedure and approved principles of color association, could be applied for structuring the chromatic images of other anthropologically relevant concepts. The research possess wide prospects for further development, based on the material of other cultures, together with a potential for considerable application.
• The findings are of interest for professionals and academics working in visual communications, media, trade and advertising. The obtained results could be valuable in compiling topical dictionaries and reference books, teaching activities, as well as contributing to a great spectrum of practical tasks in architecture and design.

Acknowledgements

Yulia A. Griber was funded by Russian Foundation for Basic Research (RFBR) according to the research project № 15-03-00733.