

## **Summary of the first two chapters of the unfinished book by Chingis Izmailov**

Ehtibar N. Dzhafarov

Professor of psychology at Purdue University (USA)

[ehtibar@purdue.edu](mailto:ehtibar@purdue.edu)

The aim of Chingis Izmailov's unfinished book was to present a systematic case for treating visual perception as a special language with its own alphabet, morphology, and syntax. In the first two chapters published here professor Izmailov considers the neurophysiological substrate of the language of visual perception and its psychophysical description. He reviews data in favor of the spherical models of perceptual dissimilarity spaces for the elementary properties of visual stimulus (intensity, spectral composition, spatial orientation). He proposes to use the 2D sphericity (circularity) of the geometric representation of a visual feature as the criterion of its belonging to the class of basic elements (analogs of graphemes and phonemes) of which visual alphabet is composed.

**Key words and phrases:** color vision, elementary constituents of visual alphabet, evoked potential of discrimination, method of silent (instantaneous) substitution, metric of visual differences, multidimensional scaling, perception of line segments, spherical model, two-channel modulus of visual discrimination, visual alphabet.