Gaze differences in processing pictures with emotional content

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Abstract: The International Affective Picture System (IAPS) consists of emotional pictures divided in three categories; valence, arousal and dominance. This base has been used for different electrophysiological research of emotional processes with no consistent results. One possible explanation for this may be the difference in perceiving pictures. In order to detect what subjects really look at on the presented pictures, an eye-tracking experiment with 12 emotional pictures divided into three categories by valence was conducted. Areas of interest were defined for each picture in order to capture generalizations about how the participants direct their gaze. While perceiving an image, main elements which can define our fixation and exploration on a presented picture are luminosity, color, edges and contrast. In this research black and white pictures were compared with the same pictures in color. Results are interpreted in terms of fixations, saccades and defined areas of interest.