

THE NEUROPHYSIOLOGICAL ASPECTS OF THE REACTIONS TO EMOTIONALLY ACCENTED MASS MEDIA

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The media effects represent a complex subject for research. Now the issue of great importance is to detect unique traits in reactions to emotionally accented mass media in the conditions similar to the natural setting of TV news program. The aim of current study was to investigate the neurodynamics of human brain while watching negative TV news (4 plots each 1-1.5 minutes long) interrupted by a pause for three 30 seconds-long TV commercials (food and drink). 86 healthy volunteers aged 17 to 26 years participated in this study. All participants characterized the TV news as unpleasant and activating, the ads – as rather pleasant and relaxing. We demonstrated that the viewing TV news and TV ads caused activation changes in the information-analytical cognitive processes of neural networks. They increased actualization of attention (depression alpha2 rhythm), short-term memory with an emotional component (increase in theta 1, 2 in the central-posterior and right frontal areas only for negative TV news), as well as semantic-cognitive and emotional processes (depression alpha3 and exaltation of beta 1,2 bands). Increasing the number of viewed TV news plots with ads interruption in spite of their negative emotional content led to the development of intellectual processes of adaptation (no changes in the reactivity of the theta-rhythm and activity reduction of cognitive beta 1.2 and alpha3 neural networks). Depression of alpha1,2-bands (external attentional system) demonstrates the activity of the descending control systems. We revealed the most significant changes in EEG while watching TV ads after TV news and the absence of such changes in the functional activity of brain under prolonged viewing of TV ads. It was demonstrated that inhibitory effect of ads viewing on the activation of cognitive neural networks in response to watching TV news despite their negative emotional orientation. The general trends show that violent video cause more significant emotional impact on mental state.

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