

DESCRIPTION FOR THE GENERAL PUBLIC

It is commonly believed that emotions lead to impaired thinking and make it difficult for us to control our behavior. In this project we will test the course of the control processes, checking whether there are circumstances in which they can be assisted by the presence of emotionally saturated material. This is an inescapable effect of the recently published theoretical model. The scientific goal of this research project is to understand how the emotional charge hidden in words affective connotations influences the control processes essential for behavior production in tasks requiring cognitive effort. During the project, research will be conducted to compare the consequences of reading neutral words, but with a low or high arousal or subjective significance and emotional words related to unpleasant (negative emotions) or pleasant (positive emotions) feelings. Emotions will also vary in their level of complexity in response to the incoming stimuli. They will be either simple (we are talking about automatic origins) or more complex, arousing because of thinking about a given situation (we are then talking about reflective originated emotions).

Ten experimental studies are planned. Half of them will be done using electrophysiological measurements, another half with psychological measurements. We will use three different tasks that require the involvement of control in order to properly execute them. These will be respectively: (1) Stroop's emotional test in which words in different colors are displayed on the computer screen and the task for participants is to name their color and ignore their contents at the same time; (2) Antisaccade test, in which task for participants is to ignore the sharp stimulus that appears on the screen and pay attention to the stimulus presented for a split second on the opposite side of the screen, and (3) the go-nogo test, in which task for participants is to responding or abstaining from reactions according to the presented instruction.

Presented here approach to solve the problem of emotion or affect role in cognitive control processes is innovative due to the fact that, so far, in psychology, it has not been acknowledge enough that emotions are, in fact, diverse. Traditionally, they were often only a simple response to "fear" or "joy", which mostly provoked arousal.

Although the project includes basic research, its results may be important in the long run to understand the factors that are responsible for the way cognitive tasks work. Emotion-cognition relation addressed in this proposal and an understanding of its nature is crucial for the development of productivity and social relationships. Results will be useful in areas such as negotiation, social conflicts, assertiveness, the well-being of individuals and societies, education and upbringing