



## Weather and emotional state

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### Introduction

Given the proven effects of weather on the human organism, an attempt to examine its effects on a psychic and emotional level has been made. Emotions affect the bio-tonus, working ability and concentration, hence their significance in various domains of economic life, such as health care, education, transportation, tourism, etc.

### Data and methods

The research has been made in Sofia City within a period of 8 months, using 5 psychological methods (Eysenck Personality Questionnaire (EPQ), State-Trait Anxiety Inventory (STAI), Test for Self-assessment of the emotional state (developed by Wessman and Ricks), Test for evaluation of moods and Test "Self-confidence – Activity – Mood" (developed by the specialists from the Military Academy in Saint Petersburg). The Fiodorov-Chubukov's complex-climatic method was used to characterize meteorological conditions because of the purpose to include in the analysis a maximal number of meteorological elements. 16 weather types are defined in dependence of the meteorological elements values according to this method. Abrupt weather changes from one day to another, defined by the same method, were considered as well.

### Results and discussions

The results obtained by t-test show that the different categories of weather lead to changes in the emotional status, which indicates a character either positive or negative for the organism. The abrupt weather changes, according to expectations, have negative effect on human emotions but only when a transition to the cloudy weather or weather type, classified as "unfavourable" has been realized. The relationship between weather and human emotions is rather complicated since it depends on individual characteristics of people. One of these individual psychological characteristics, marked by the dimension "neuroticism", has a strong effect on emotional reactions in different weather conditions. Emotionally stable individuals are more "protected" to the weather influence on their emotions, while those who are emotionally unstable have a stronger dependence to the impacts of the weather.