

HABILITATION THESIS

**PSYCHOLOGICAL SCIENCE THEORIES IN PSYCHOTHERAPY AND HUMAN
ADAPTATION: DEVELOPMENTS AND APPLICATIONS**

ALEXANDRU TIBA

PhD, Department of Psychology, University of Oradea, Oradea

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ABSTRACT

The thesis consists of two major parts, one that describes my research background and achievements, and the second, the career development plan for the next 5 years. The focus of the first part is on theoretical developments related to the cognitive model of vulnerability to emotional disorders, applications to psychotherapy practice and interdisciplinary research. It is divided into four chapters, each chapter having a specific focus.

The first chapter outlines the theoretical developments regarding theories of evidence based psychological treatments. The first article suggests that many misunderstandings existing in the field of psychotherapy may be resolved by promoting the distinction between psychotherapies and psychological science treatments. Psychological science has made significant advancements for the field of psychotherapy and all these contributions evolved toward what I call psychological science treatment that is a psychological treatment based on validated theories of mechanisms of change and functioning of our mind. The advantages of promoting this distinction are described. The second and third articles present a translational framework based on the embodied property of cognition that may help integrate data from affective sciences into the theory and practice of psychological treatments. Here I focus on the oldest form of cognitive behavioural treatments (i.e., Rational Emotive Behaviour Therapy) which early proposals are closely related to this view.

In the Chapter two, I describe three studies focused on psychological mechanism involved in vulnerability to emotional pathologies. In the first study I found that positive irrational beliefs are associated with hypomanic personality and the risk to bipolar disorder. This is the first study to evidence the role of irrational beliefs in the risk for bipolar disorder. In study two, I describe three experiments that found that mental simulations of positive feelings are impaired in individuals with high levels of depressive symptomatology. In study three, I tested the role of perspective in imagining positive situations. The results suggest that the effect of perspective is more specific, internal perspective when imagining positive events not necessarily resulting in increases in positive cognitions.

In the Chapter three, I describe an application of the embodied cognition model to restructuring motor cognition in individuals with depression. First, in a single case study, I describe the application of a rehabilitative intervention targeting the motor embodiment of action cognition. In this intervention I facilitate the recruitment of motor resources in understanding of the environment, plans, memories. Our results suggest that interventions that

target the dysfunctional embodiment processes of biased cognition are promising for the development of new psychological interventions or optimising the existing ones.

Second, I present a protocol of a randomised clinical trial for assessing the acceptability and preliminary efficacy of adding an exergame-augmented dynamic imagery intervention to the behavioural activation treatment of depression. Third, I describe testing of a CBT based positive parenting programme.

In Chapter four, I describe interdisciplinary work of applying psychological theories to human adaptation during major crises such as COVID-19. The first study analyses the changes in travel behaviour and analyses the psychological profile associated with travel avoidance and risky travel. I found that fun-seeking personality was the only major predictor of travel intention during COVID-19 crisis, while fear of travel was the only predictor of travel avoidance. In the second study, I examined the psychological predictors to intention to vaccinate for travel reason. Given the epidemic evolution of COVID-19 in certain regions traveling to these regions require the necessity of vaccination before traveling. Thus, I investigated psychological factors that predict the intention to vaccinate for travel. I found that the intention to vaccinate for travel reasons is best predicted by vaccination status and perceptions of safety and efficacy of vaccines against COVID-19. The results showed that vaccinated individuals believing that vaccines are safe and effective most probably will take another vaccine booster if it will allow them to travel.

The second part of the thesis presents my career plans for the next 5 years. The outlined goals for research and teaching advance may past efforts. More specifically, my plans involve conducting research on: (1) the ABC model of dysfunctional positive feelings and the role of irrational beliefs in the mixed emotions, (2) testing the motor fluency deficiencies as a basis for deficiencies of positive affect in anhedonia (2) testing the advantage of addressing the embodiment of cognition in CBT treatments, (3) testing the efficacy of an exergame-augmented dynamic imagery intervention to behavioural activation treatment, and (4) developing assessment and interventions for chronic pain. The main goal for teaching is to promote evidence-based psychological treatments by new courses and dissemination of treatment manuals and training for clinical psychologists in Romania.