

Department of Psychology
Faculty of Philosophy
University of Niš



International Conference
DAYS OF APPLIED PSYCHOLOGY

14th DAYS OF APPLIED PSYCHOLOGY
- Modern age and competencies of psychologists -
Niš, Serbia, September 28th & 29th 2018



International Thematic Proceedia

Дани
Примењене
Психологије

Ψ

Days
of Applied
Psychology

MODERN AGE AND COMPETENCIES OF PSYCHOLOGISTS

International Thematic Proceedia



Editor-in-chief:
Gordana Đigić, PhD

Reviewers:

Darja Kobal Grum, PhD, Professor, Faculty of Philosophy, University of Ljubljana, Slovenia

Violeta Arnaudova, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Skopje, Macedonia

Vladimir Takšić, PhD, Professor, Faculty of Philosophy, University of Rijeka, Croatia

Particular Paper's Reviewers:

Snežana Smederevac, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Novi Sad, Serbia

Tamara Džamonja Ignjatović, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Belgrade, Serbia

Aleksandra Kostić, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Snežana Stojiljković, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Snežana Vidanović, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Marina Hadži Pešić, PhD, Professor, University of Niš, Faculty of Philosophy, Department of Psychology, Serbia

Ljubiša Zlatanović, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Vladimir Hedrih, PhD, Associate professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia – Chairman of the Organizing committee

Bojana Dimitrijević, PhD, Professor, University of Niš, Faculty of Philosophy, Department of Psychology, Serbia

Gordana Đigić, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Nebojša Milićević, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Miodrag Milenović, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Jelena Opsenica Kostić, PhD, Associate professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Ivana Janković, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Milena Kutlača Pašić, PhD, Associate Professor, Faculty of Philosophy, University of BanjaLuka, Republic of Srpska

Darja Kobal Grum, PhD, Professor, Faculty of Philosophy, University of Ljubljana, Slovenia

Vincenzo Maimone, PhD, Associate Professor, Department of Political and Social Sciences, University of Catania, Italy

Camellia Hancheva, PhD, Assistant Professor, Faculty of Philosophy, University of Sofia, Bulgaria

Violeta Arnaudova, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Skopje, Macedonia

Majda Rijavec, PhD, Professor, Faculty of Teacher Education, University of Zagreb, Croatia

Dubravka Miljković, PhD, Professor, Faculty of Teacher Education, University of Zagreb, Croatia

Dušan Todorović, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Kristina Randelović, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Milica Mitrović, PhD, Assistant Professor, University of Niš, Faculty of Philosophy, Department of Psychology, Serbia

Milica Tošić Radev, PhD, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Damjana Panić, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Mila Dosković, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Nikola Ćirović, Research Assistant, University of Niš, Faculty of Philosophy, Center for Psychological Research, Serbia

Conference Program committee:

Jelisaveta Todorović, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia Chairman of the Program committee

Snežana Smederevac, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Novi Sad, Serbia

Zorica Kuburić, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Novi Sad, Serbia

Tamara Džamonja Ignjatović, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Belgrade, Serbia

Slavica Maksić, PhD, Scientific councilor, Institute for Educational Research, Belgrade

Aleksandra Kostić, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Snežana Stojiljković, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Snežana Vidanović, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Tatjana Stefanović-Stanojević, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Ljubiša Zlatanović, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Gordana Đigić, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Nebojša Milićević, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Miodrag Milenović, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Jelena Opsenica Kostić, PhD, Associate professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Ivana Janković, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Milena Kutlača Pašić, PhD, Associate Professor, Faculty of Philosophy, University of BanjaLuka, Republic of Srpska

Siniša Lakić, PhD, Assistant Professor, Faculty of Philosophy, University of Banja Luka, Republic of Srpska

Vladimir Takšić, PhD, Professor, Faculty of Philosophy, University of Rijeka, Croatia

Darja Kobal Grum, PhD, Professor, Faculty of Philosophy, University of Ljubljana, Slovenia

Vladimir Yanchuk, PhD, Professor, Psychology faculty, Belarus state university, Minsk, Belarus

Irina Antonenko, PhD, Professor, Kosygin Russian State University, Moscow, Russia

Igor Karickii, PhD, Professor, Kosygin Russian State University, Moscow, Russia

Vincenzo Maimone, PhD, Associate Professor, Department of Political and Social Sciences, University of Catania, Italy

Maida Koso-Drljević, PhD, Assistant Professor, Faculty of Philosophy, University of Sarajevo, Bosnia&Herzegovina

Sofija Georgievska, PhD, Assistant Professor, Faculty of Philosophy, University of Skopje, Republic of Macedonia

Camellia Hancheva, PhD, Assistant Professor, Faculty of Philosophy, University of Sofia, Bulgaria

Jelena Želeskov Đorić, PhD, Lecturer - Psychology, Charles Darwin University, School of Psychological and Clinical Sciences, Australia

Violeta Arnaudova, PhD, Professor, Department of Psychology, Faculty of Philosophy, University of Skopje, Macedonia

Vera Winther, PhD, Associate Professor, University College Absalon, Denmark

Majda Rijavec, PhD, Professor, Faculty of Teacher Education, University of Zagreb, Croatia

Dubravka Miljković, PhD, Professor, Faculty of Teacher Education, University of Zagreb, Croatia

Stefan Đorić, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia – Secretary of the Program committee

Organizing Committee

Vladimir Hedrih, PhD, Associate professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia – Chairman of the Organizing committee

Marija Pejičić, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia – Secretary of the Organizing committee

Dušan Todorović, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Kristina Randelović, PhD, Assistant Professor, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Milica Tošić Radev, PhD, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Ivana Pedović, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Damjana Panić, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Aleksandra Stojilković, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Mila Dosković, Assistant, Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

International Thematic Proceedia

14th Days of Applied Psychology

MODERN AGE AND COMPETENCIES OF PSYCHOLOGISTS

Niš, Serbia, September 28th & 29th 2018.

Editors:

Jelisaveta Todorović, PhD, University of Niš, Serbia, Faculty of Philosophy
Vladimir Hedrih, PhD, University of Niš, Serbia, Faculty of Philosophy
Stefan Đorić, Msc, University of Niš, Serbia, Faculty of Philosophy



University of Niš
Faculty of Philosophy
Department of Psychology
2019.

CONTENTS

Tamara Džamonja Ignjatović EDUCATIONAL COMPETENCIES OF PSYCHOLOGISTS FOR THE MODERN AGE.....	15
Tijana Mirović SCHEMA THERAPY – A NEW OUTLOOK AT MODERN AGE PROBLEMS AND “OLD” DISORDERS	31
Dragana Bjekić, Svetlana Obradović & Milica Stojković REGULATIONS OF PSYCHOLOGISTS’ PROFESSION AND THEIR EDUCATION IN GREECE AND SERBIA	43
Milica Stojković, Dragana Bjekić & Lidija Zlatić TEACHERS’ PERCEPTIONS AND EXPECTATIONS FROM A SCHOOL PSYCHOLOGIST	59
Jelena Vranješević & Nataša Simić INCLUSION OF MIGRANT CHILDREN IN FORMAL EDUCATION: CHILDREN’S PERSPECTIVE	77
Velina Hristova PSYCHOMETRIC PROPERTIES OF BULGARIAN VERSION OF ADULT EATING BEHAVIOUR QUESTIONNAIRE	89
Miodrag Milenović & Miljan Jović PERSONAL AND HISTORICAL NOSTALGIA – DIFFERENCES IN EMOTIONAL RESONANCE	103
Radina Stoyanova & Sonya Karabeliova INDIVIDUAL DIFFERENCES IN TIME PERSPECTIVE IN BULGARIAN SOCIO-CULTURAL CONTEXT	113
Martina Baránková & Júlia Halamová CZECH AND SLOVAK DIFFERENCES OF COMPASSION AND SELF-COMPASSION – QUALITATIVE RESEARCH ANALYSIS OF THE FREE ASSOCIATIONS	127
Katarina Minčić, Milena Vujičić, Kristina Milević, Marija Todosijević ROLE OF INJUNCTIONS ON PREDICTION OF SELF-HANDICAPPING STRATEGIES	139

Maja Stanojević Ristić & Danica Vukić PEN OR VP+2 MODEL IN PREDICTING SCHOOL ANXIETY	151
Diana Christova & Teodora Djorgova PERSONALITY AND SUBJECTIVE AGE IN EMERGING ADULthood: COMPARISONS OF TWO GROUPS OF STUDENTS	173
Milena Pašić, Svetlana Borojević & Tanja Čolić SELF-ESTEEM, EMOTIONAL INTELLIGENCE AND SOCIAL COMPETENCE IN RELATION TO AGE	185
Milica Tošić Radev, Dušan Todorović & Snežana Stojiljković SELF-REPORTED AND PARTNER-REPORTED PERSONALITY TRAITS AS PREDICTORS OF MARITAL QUALITY	195
Ivana Janković & Jelisaveta Todorović INTIMATE PARTNER VIOLENCE, ATTITUDES TOWARD GENDER EQUALITY AND SELF-ESTEEM OF FEMALE STUDENTS	211
Vincenzo Maimone WHY IS SOCIAL PSYCHOLOGY IMPORTANT FOR DEMOCRACY? FROM OBEDIENCE TO AUTHORITY TO LUCIFER EFFECT	225
Nemanja Đorđević THE CORRELATION BETWEEN RIGHT-WING AUTHORITARISM AND LIKING AND ARTISTIC EVALUATION OF ABSTRACT AND REALISTIC MODERN EUROPEAN PAINTINGS	237
Biliana (Alexandrova) Lyubomirova CULTURE TYPES AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR IN AN IT AND TELECOMMUNICATIONS COMPANY	249
Biljana Jaredić, Jelena Davidović – Rakić & Jelena Minić WORK BURNOUT IN HEALTH SERVICES	261
Biljana Mirković PERSONAL AND SITUATIONAL CORRELATES OF PRODUCTION WORKERS BURNOUT	275
Tatyana Yordanova THE NEED FOR EMOTIONS - A MOTIVE FOR INNOVATIVENESS OF THE CONTEMPORARY CONSUMER	291

Marina Novaković EXAMINATION OF THE RELATIONS OF TWO PERSONALITY MODELS ON A CLINICAL POPULATION (HEXACO AND VP + 2)	305
Snežana Samardžić & Marina Novaković THE RELATIONSHIP BETWEEN SCRIPT INJUNCTIONS, LIFE POSITIONS AND DEFENSE MECHANISMS WITH PEOPLE WITH SCHIZOPHRENIA	321
Irena Stojadinović & Ana Petrović OUR BODY: A TOOL FOR INTEGRATION OF EMOTIONS AND CONSCIOUSNESS – PERSPECTIVE OF A BODY PSYCHOTHERAPIST	337
Ana Petrović USING AND ABUSING AGGRESSION AND POWER	347
Ingrid Kalinova Isinova EMDR AND EMOTIONAL TRAUMA - A CHILD IN BATTLE WITH DISEASE AND MOCKERY: PRESENTATION OF A CASE	361
Anja Eraković & Aleksandra Hadžić, ACTIVATION OF ATTACHMENT SYSTEM AND ATTACHMENT STABILITY IN STRESSFUL SITUATION	383
Petar Mrđa, Kasandra Ribić & Danilo Bodroža RELATIONS BETWEEN ATTACHMENT STYLES, LIFE POSITIONS AND DRIVERS	399
Đorđi Đeorgiev & Tina Janjić UNDERSTANDING SUPERSTITION IN DEVELOPMENTAL CONTEXT OF ATTACHMENT	413

FOREWORD

The Proceedings entitled *Modern Age and Competencies of Psychologists* contains papers presented at 14th International Conference, Days of Applied Psychology, held on September 28th & 29th 2018 at the Faculty of Philosophy, University of Niš. This annual conference has been organized since 2005 by the Department of Psychology of the Faculty of Philosophy, University of Niš, with the support and co-financing of the Ministry of Education, Science and Technological Development of the Republic of Serbia.

The idea behind the organizers when establishing this conference was to bring together authors, researchers and practitioners from the field of psychology and related professions in the country and the region in order to create a bridge between scientific research, on the one hand, and the experiences of practitioners and the needs of practice, on the other. This scientific meeting gradually brought together more and more researchers from the country and abroad and, from 2014, it has obtained the status of an international conference. On the other hand, it is evident that its international rank has distanced practitioners, making the scientific and research character of the conference more dominant. In order to make the conference topics attractive to practitioners again and taking into account the needs of contemporary reform processes in education, the Program Committee of the Conference decided to make the *competencies of psychologists* the main topic of the fourteenth conference Days of Applied Psychology in Niš, which are necessary for various engagements of experts of this profile in modern society.

At the conference, 96 authors from the Republic of Serbia and 51 author from abroad presented their contributions. Therefore, in total, 147 authors. Authors from Serbia, USA, Bulgaria, Greece, Slovakia, Italy, Denmark, Bosnia and Herzegovina and North Macedonia presented their papers. The conference had three plenary lectures:

- *Educational competencies of psychologists for the modern age*, prof. dr Tamara Džamonja Ignjatović Department of Social Policy and Social Work, Faculty of Political Sciences, University of Belgrade; Department of Psychology, Faculty of Philosophy, University of Belgrade. In her lecture, professor Džamonja Ignjatović presented an overview of contemporary competencies of psychologists based on the APA report on practical competencies of the Association for Directors of Psychology Training Clinics (ADPTC). She also talked about how psychology curricula at universities in Serbia develop competencies and how to identify the missing knowledge and skills that should be integrated into study programs and practical classes to improve psychological practice for the modern era. In conclusion, the author points out that the "Present review indicates that there are no clear differences between levels of bachelor, master and doctoral studies,

except that programs are much more methodology oriented, preparing psychologists for scientific research at higher level of studies. It seems to be “more of the same”, while the practice is almost completely neglected. Evidently, the main problem is the lack of training practicum, particularly at the higher level of studies” (*Modern age and competencies of psychologists*, 2019, pp 26).

- *Schema therapy – A new outlook at modern age problems and “old” disorders*, prof. dr Tijana Mirović Faculty of Music, University of Arts Belgrade; Counseling center Mozaik, Belgrade; Schema Therapy Center Belgrade. In the paper, the author strives to connect the competencies of psychologists with the knowledge and skills provided by Schema Therapy. In author's words, “schema therapy is an integrative approach unifying elements from cognitive-behavioral, psychodynamic and humanistic schools. A number of studies support its effectiveness in treating a variety of disorders including personality disorders which were previously predominantly considered non-treatable. Schema Therapy is also, associated with higher levels of patient satisfaction thus benefiting both clients and therapists” (*Modern age and competencies of psychologists*, 2019, pp 29).
- *Ethical challenges when working with children and adolescents*, Cecile Dillon Dillon Psychological Services, Huntington Beach, California; Integrated Behavioral Health, Inc.; National University, Costa Mesa, California; Board of Behavioral Sciences, Sacramento, California; Board of Psychology, Sacramento, California. The authors states that “mental health providers who work with minors must be familiar with relevant state laws, understand considerations that may apply when minor's parents are separated or divorced and be knowledgeable how to create and protect the psychotherapeutic space so that the minor has the freedom to identify, examine, explore, and resolve issues as necessary while keeping parents appropriately informed about treatment” (Book of Abstracts 2018, pp 11). The successful start of psychotherapy and its successful management, in case of older children, implies that the therapist clearly understands what type of information he or she will consider to be strictly confidential and the circumstances in which that information can be shared.

The topics of plenary lectures reflect the goals of the conference, to offer scientifically and professionally significant topics, to connect science, profession and education and to consider the ethical issues that practice raises.

The thematic Proceedings, which contains peer-reviewed full papers, has 29 titles that are predominantly of scientific and research character. They are grouped into several related parts: psychology of education; psychometrics; marital and family relations; organizational psychology; clinical psychology and current issues in psychotherapy; as well as research from the perspective of the attachment theory. These topical units are not uniformly represented, and it is certain that it is possible to classify the works differently, especially those that

combine multiple areas. Some papers are more closely related to the main topic of the meeting, and some not so directly. There are multiple reasons for that. Many researchers planned and started their studies before announcing the topic of the meeting, which often happens, and they certainly wanted to report their results to the scientific public. The authors who participate in this conference are often collaborators on research projects, and the topics of their projects oblige them to do research in accordance with the project objectives. This explains why a considerable number of conference papers does not strictly belong to the main topic of the conference.

The tradition of this conference, which has been held for years with great success, with a steady increase in the number of participants and countries from which the authors come, is of great importance to the Department of Psychology of the Faculty of Philosophy in Niš. Thanks to this conference, psychologists and experts in related fields are connecting at the regional level. On the other hand, the conference, by its concept, links the problems of psychological practice and scientific methodology and, in recent years, with the transition into an international scientific conference, the scope of this conference goes beyond national frameworks. This encourages the organizers and hosts of the conference that it will indeed help to ensure that the education of psychologists at the University of Niš follows, above all, European and global educational standards.

Editors:

Jelisaveta Todorović, PhD,

Vladimir Hedrih, PhD,

Stefan Đorić, Msc

EDUCATIONAL COMPETENCIES OF PSYCHOLOGISTS FOR THE MODERN AGE

Abstract

Defining core competences of psychologists and learning outcomes of psychology studies could be the starting point for the improvement of Universities' curricula, practicum training programs and consequently, improvement of professional practice cooperation with other professionals in the best interest of our clients and our profession. In this paper, the review of the psychologists' competences is based on the APA Report on Practicum Competencies of the Association of Directors of Psychology Training Clinics (ADPTC). At the end, it will be discussed how psychology curricula at Universities in Serbia address these competences and identify the missing knowledge and skills that should be integrated in programs of studies and practicum trainings to improve our practice for the modern age.

Key words: competencies of psychologists, learning outcomes of psychology, stages of the competences' development, practicum training programs, methods of assessment of learning outcomes

Introduction

Psychology has been expanding its field of scientific interest and research during its development from the late 19th century until today. At the same time, its practical applications have been spreading to almost all areas of human activities. Despite the rapid development of psychology as a science, applied psychology does not follow this trend. It seems that sometimes theoretical and empirical foundations of practice, as well as boundaries of professional identity are not sufficiently clear. Therefore, some questions arise, such as: Which are the roles and the tasks of psychologists within the different fields of practice? Which of them are specific to psychologists and which are common with other professions? What are the competences that should be developed for effective and competent practice?

In order to answer these questions, it is necessary to start from the knowledge and skills that should be included as a key part of University curricula and practicum training programs to prepare psychologists as competent professionals.

Also, it is important to understand how to develop those competences and what are the stages of competences' development? Finally, how can we measure learning outcomes and what are specific methods of assessment of them? Therefore, the overview of competencies for psychological practice and the learning outcomes of psychology studies could be the starting point for

the improvement of psychological profession and collaboration with other professionals.

Core competences of psychologist arise from the complex tasks in different fields of practice. First of all, psychologists, as scientist in practice, have to incorporate a lot of theoretical knowledge from psychology and other disciplines, due to interdisciplinary character of psychology that stands on the crossroad of natural and social sciences. That also includes knowledge of scientific research and evaluation methodologies. As practitioners, they have to master different methods of assessment, interventions (psychological treatments and counseling) and consultations that should be based on evidence-based practices. When working with individuals, families or groups, they should develop a range of interpersonal skills, team work and management skills for different settings; as educators, well developed teaching and supervision skills are necessary. Finally, as professionals, they have to adopt professional values, including critical thinking, openness and sensitivity for individual and cultural diversities, demonstrate knowledge of ethical and legal standards of practice, as well as reflective practice, self-reflection and self-care. Keeping in mind these complex aspects of the practice, competencies that are necessary for performing these tasks, must be integrated and developed through the university's programs at different levels of studies.

In this paper it is not possible to present competences for all fields of applied psychology or to present educational goals for all levels of studies. Therefore, the limitation of this review is that it would be focused on the doctoral level of study for clinical psychology. It seems that it would be useful to start from highest level of educational goals using top-down principle.

The following section is quoted from American Psychology Association (APA) *Practicum Competencies* of the Association of Directors of Psychology Training Clinics (ADPTC) Practicum Competencies Workgroup¹

Core competencies in psychology

The Association of Directors of Psychology Training Clinics (ADPTC) recognized the importance of defining, training for and assessing core competencies in psychology.² The aim of the document was to assemble and organize descriptions of currently *identified core competencies* for the professional psychologist. Also, their aim was to characterize *the levels of competence* in these

¹ The whole text of the Practicum Competencies available at [https://aptc.org/public_files/Practicum%20Competencies%20FINAL%20\(Oct%20'06%20Version\).pdf](https://aptc.org/public_files/Practicum%20Competencies%20FINAL%20(Oct%20'06%20Version).pdf). The text is the report of the Council of Chairs of Training Councils Practicum Competencies Workgroup. The original document was slightly shortened for the purpose of this paper. It is presented here in order to show the example how competences of psychologist could be conceptualized. Only the introduction and conclusion are contribution of the author of this paper.

² Please see Hatcher & Lassiter (2007) for a fuller discussion of the aims and uses of this document.

core domains that are expected at the beginning of practicum training and at the end of practicum training, prior to beginning internship.

Potential uses for this document³:

1. Assist in developing practicum training programs by defining competency goals.
2. Assist in communication between practicum sites and graduate programs regarding training goals.
3. Develop competency assessments for practicum trainees.
4. Provide a basis for evaluating outcomes for practicum training programs.
5. Stimulate thinking concerning competency goals for more advanced training.

Scope and applicability of this document

1. This document covers an extensive set of competencies, most of which have been endorsed more or less strongly by various groups in professional psychology as required for a fully competent psychologist.
2. We recognize that professional psychology as a whole has not endorsed a list of competencies regarded as essential for the fully competent professional Psychologist
3. We recognize that individual psychology programs, depending on their educational goals, will likely select a subset of the competencies listed below that reflect the thrust of their program's goals. This point should be stressed, lest readers conclude that every practicum program should teach all of the competencies described below. The aim of this document is to provide a comprehensive account of relevant competencies, which can inform a program's effort to develop and implement its own training model. In its Guidelines and Principles for Accreditation of Programs in Professional Psychology (2005), the APA notes that "The accreditation process involves judging the degree to which a program has achieved the goals and objectives of its stated training model. That is, an accreditation body should not explicitly prescribe a program's

³ This document is based on the work of the ADPTC Competencies Workgroup, with input from the CCTC Competencies Workgroup and the CCTC itself. It draws on many sources. Key are reports from two conferences held by psychology educators: The 2001 American Psychological Association (APA) Education Leadership Conference, with its Workgroup on Practicum Competencies, whose report may be found at <http://www.apa.org/ed/elc/home.html>; and the APPIC Competencies Conference: Future Directions In Education And Credentialing In Professional Psychology, held in November 2002 in Scottsdale AZ, whose report may be found at http://www.appic.org/news/3_1_news_Competencies.htm. An explicit decision was made not to seek consensus of the total Competencies Conference group on the specification of competencies for psychologists. Although the present document assembles specifications for competencies into one document, we are not claiming consensus on which of these competencies are "core," or essential competencies for the field (see "Scope and applicability of this document" above).

educational goals or the processes by which they should be reached...”
(Section II.a.)

Levels of Competence⁴

One of the most widely used schemes for describing the development of competence is that of Dreyfus and Dreyfus (1986), who define five stages, from Novice to Advanced Beginner to Competent to Proficient to Expert. The Dreyfuses’ overall idea is that as the learner becomes more and more familiar with the analytic and action tasks of the field, performance becomes more integrated, flexible, efficient and skilled. Patterns and actions that have to be carefully thought about and/or taught by supervisors become internalized and increasingly automatic.

The document utilizes the following categories in describing the level of competence⁵ expected at the conclusion of the practicum. In some areas, substantial competence is expected, while in others, just the beginning of understanding is expected – a student, or any psychologist for that matter, may be expert in some areas and a novice in others. The definitions, based on Dreyfus & Dreyfus (1986) are modified versions of definitions offered by Benner (1984), with further input from Alexander (2004).

1. Novice (N): Novices have limited knowledge and understanding of (a) how to analyze problems and of (b) intervention skills and the processes and techniques of implementing them. Novices do not yet recognize patterns, and do not differentiate well between important and unimportant details; they do not have filled-in cognitive maps of how, for example, a given client may move from where he/she is to a place of better functioning.

2. Intermediate (I) Psychology students at the intermediate level of competence have gained enough experience through practice, supervision and instruction to be able to recognize some important recurring domain features and to select appropriate strategies to address the issue at hand. Surface level analyses of the Novice stage are less prominent, but generalization of diagnostic and intervention skills to new situations and clients is limited, and support is needed to guide performance.

3. Advanced (A) At this level, the student has gained deeper, more integrated knowledge of the competency domain in question, including appropriate knowledge of scholarly/research literature as needed. The student is considerably more fluent in his/her ability to recognize important recurring domain features

⁴ see Hatcher & Lassiter (2007) for a fuller discussion of the levels of competence

⁵ When discussing competence, keeping the terms straight is a challenge, since similar-sounding terms refer to different concepts. In particular, note that “competency” refers to a skill domain (e.g., assessment), “competence” or “level of competence” refers to the level of skill an individual has acquired (e.g., intermediate level of competence in assessment), and “competent” is a description of a particular level of skill (e.g., this psychologist is competent in neuropsychological assessment). There is also the forensic definition of competent and competence, which one encounters when doing a web search on these terms, but these meanings are irrelevant to the current discussion.

and to select appropriate strategies to address the issue at hand. In relation to clinical work, recognition of overall patterns, of a set of possible diagnoses and/or treatment processes and outcomes for a given case, are taking shape. Overall plans, based on the more integrated knowledge base and identification of domain features are clearer and more influential in guiding action.

At this level, the student is less flexible in these areas than the proficient psychologist but does have a feeling of mastery and the ability to cope with and manage many contingencies of clinical work.

4. Proficient (P) The proficient psychologist perceives situations as wholes rather than in terms of chopped up parts or aspects because they perceive its meaning in terms of longer-term goals. The proficient psychologist learns from experience what typical events to expect in a given situation and how plans need to be modified in response to these events. The proficient psychologist can recognize when the expected normal picture does not materialize and takes steps to address these situations (including seeking supervision, reviewing research literature). This holistic understanding improves the proficient psychologist's decision making; it becomes less labored because the psychologist now has a perspective on which of the many existing attributes and aspects in the present situation are the important ones – the psychologist has developed a nuanced understanding of the clinical situation.

5. Expert (E) The expert no longer relies on an analytic principle (rule, guideline, or maxim) to connect her or his understanding of the situation to an appropriate action. The expert psychologist, with an enormous background of experience, now has an intuitive grasp of each situation and zeroes in on the accurate region of the problem without wasteful consideration of a large range of unfruitful, alternative diagnoses and solutions. The expert operates from a deep understanding of the total situation. This is not to say that the expert never uses analytic tools. Highly skilled analytic ability is necessary for those situations with which the psychologist has had no previous experience. Analytic tools are also necessary for those times when the expert gets a wrong grasp of the situation and then finds that events and behaviors are not occurring as expected. When alternative perspectives are not available to the clinician, the only way out of a wrong grasp of the problem is by using analytic problem solving.

Individual and Cultural Difference

A core principle behind all competencies listed in this document is awareness of, respect for, and appropriate action related to individual and cultural difference (ICD). Issues of ICD are relevant to each of the competencies described, but take a particularly large role in some

Practicum Competencies Outline

A. Baseline Competencies: Skills, Attitudes and Knowledge that students should possess prior to their practicum training experience:

Before beginning practicum the student should possess and demonstrate a *set of basic personal and intellectual skills, attitudes and values, and a core of professional knowledge*. This core knowledge and these skills, attitudes and values are baseline competencies of the professional psychologist. We argue that it is inappropriate to undertake formal clinical professional training with students who have not acquired these skills. The work of subsequent clinical training is to shape and refine these baseline skills into professional skills.

A.1. Personality Characteristics, Intellectual and Personal Skills

- a) **Interpersonal skills:** ability to listen and be empathic with others; respect for/interest in others' cultures, experiences, values, points of view, goals and desires, fears, etc. These skills include verbal as well as non-verbal domains. An interpersonal skill of special relevance is the ability to be open to feedback.
- b) **Cognitive skills:** problem-solving ability, critical thinking, organized reasoning, intellectual curiosity and flexibility.
- c) **Affective skills:** affect tolerance; tolerance/understanding of interpersonal conflict; tolerance of ambiguity and uncertainty.
- d) **Personality/Attitudes:** desire to help others; openness to new ideas; honesty/integrity/valuing of ethical behavior; personal courage.
- e) **Expressive skills:** ability to communicate one's ideas, feelings and information in verbal, non-verbal and written forms.
- f) **Reflective skills:** ability to examine and consider one's own motives, attitudes, behaviors and one's effect on others.
- g) **Personal skills:** personal organization, personal hygiene, appropriate dress.

A. 2. Knowledge from classroom experience

The practicum experience will engage and develop skills and knowledge that have been the focus of pre-practicum coursework. Prior to practicum training, students should have acquired basic theoretical and research knowledge related to diagnosis, assessment, and intervention; diversity; ethics; skills in seeking out and applying research knowledge in the clinical setting. Early coursework should provide sufficient training in the following specific areas:

a) Assessment & Clinical Interviewing

- Knowledge regarding psychopathology related to the population(s) served by the practicum sites.
- Knowledge of scientific, theoretical, empirical and contextual bases of psychological assessment.

- Knowledge of test construction, validity, score reliability and related assessment psychometrics.
- Training in principles and practice of systematic administration, data-gathering and interpretation for assessment, including identifying problems, formulating diagnoses, goals and case conceptualizations; understanding the relationship between assessment and intervention, assessment of treatment progress and outcome.
- Training in the models and techniques of clinical interviewing.

b) *Intervention*⁶

- Knowledge of scientific, theoretical, empirical and contextual bases of intervention.
- Training in basic clinical skills, such as empathic listening, framing problems, etc.
- Training in assessment of treatment progress and outcome.

c) *Ethical & Legal*

- Principles of ethical practice and decision making (APA)
- Legal knowledge related to the practice of psychology [Federal, State law]

d) *Individual and Cultural Difference (ICD)*

- Knowledge and understanding of the principles and findings related to ICD as they apply to professional psychology.
- Understanding of one's own situation (e.g., one's ethnic/racial, socioeconomic, gender, sexual orientation; one's attitudes towards diverse others) relative to the dimensions of ICD (e.g., class, race, physical disability etc.).
- Understanding of the need to consider ICD issues in all aspects of professional psychology work (e.g., assessment, treatment, research, relationships with colleagues, etc.).

B. Description of Skills Leading to Competencies that are Developed During the Practicum Experience

B.1. *Relationship/ Interpersonal Skills*

The ability to form and maintain productive relationships with others is a cornerstone of professional psychology. Productive relationships are respectful, supportive, professional and ethical. Professional psychologists should possess these basic competencies when they first begin their clinical training. Although the ability to form such relationships is grounded in basic skills that most students will have developed over the course of their lives to date, helping the student hone and refine these abilities into professional competencies in the clinical setting is a key aim of the practicum. In particular, the practicum seeks to enhance students' skills in forming relationships:

⁶ Specific features of "Intervention" are more fully described in Section B.4

a) With patients/clients/families:

- Ability to take a respectful, helpful professional approach to patients/clients/families. A
- Ability to form a working alliance. I
- Ability to deal with conflict, negotiate differences. I
- Ability to understand and maintain appropriate professional boundaries. I

b) With colleagues:

- Ability to work collegially with fellow professionals. A
- Ability to support others and their work and to gain support for one's own work. I
- Ability to provide helpful feedback to peers and receive such feedback nondefensively from peers. I

c) With supervisors, the ability to make effective use of supervision, including:

- Ability to work collaboratively with the supervisor. A
- Ability to prepare for supervision. A
- Ability/willingness to accept supervisory input, including direction; ability to follow through on recommendations; A
- Ability to negotiate needs for autonomy from and dependency on supervisors. A
- Ability to self-reflect and self-evaluate regarding clinical skills and use of supervision, including using good judgment as to when supervisory input is necessary. I

d) With support staff:

- Ability to be respectful of support staff roles and persons. A

e) With teams at clinic:

- Ability to participate fully in team's work. A
- Ability to understand and observe team's operating procedures. I

f) With community professionals:

- Ability to communicate professionally and work collaboratively with community professionals. I

g) For the practicum site itself:

- Ability to understand and observe agency's operating procedures. A
- Ability to participate in furthering the work and mission of the practicum site. A
- Ability to contribute in ways that will enrich the site as a practicum experience for future students. A

2. Skills in Application of Research

Clinical practice in all health-care fields (e.g., medicine, nursing, dentistry) is based on accumulating research results, knowledge derived from practice, and

the good judgment of the clinician (for psychology, see the APA Presidential Task Force on Evidence-Based Practice, 2006). A core research knowledge base and training in accessing and applying research knowledge to clinical practice form a core competency for psychologists.

a) Development of skills and habits in seeking and applying theoretical and research knowledge relevant to practice of psychology in the clinical setting, including accessing and applying scientific knowledge bases. |

b) Understanding and application of theoretical and research knowledge related to diagnosis/assessment and intervention, diversity, supervision, ethics etc. |

3. Psychological Assessment Skills

Psychological assessment is a fundamental competency for psychologists, and it includes comprehensive and integrated assessment from the initial interview, psychological testing, intervention and the evaluation of the outcome of psychological service. A foundation of knowledge and skill is needed for psychological assessment.

a. Ability to select and implement multiple methods and means of evaluation in ways that are responsive to and respectful of diverse individuals, couples, families and groups. |

b. Ability to utilize systematic approaches to gathering data to inform clinical decision making. |

c. Knowledge of psychometric issues and bases of assessment methods. A

d. Knowledge of issues related to integration of different data sources. A

e. Ability to integrate assessment data from different sources for diagnostic purposes. |

f. Ability to formulate and apply diagnoses; to understand the strengths and limitations of current diagnostic approaches. |

g. Capacity for effective use of supervision to implement and enhance skills. A

4. Intervention Skills

Intervention includes preventive, developmental and remedial interventions. Intervention and Psychological Assessment are the two fundamental operational competencies for psychologists, and they are typically the major focus of practicum training. The mention below of competencies in empirically supported practice is not intended to restrict the range of training to a particular domain of interventions; competencies in treatment approaches based on other traditions, including "empirically supported relationships", are highly valued by many, and are intended to be included in sections "a-c" and "g-i" below.

a. Ability to formulate and conceptualize cases. |

b. Ability to plan treatments. |

c. Ability to implement intervention skills, covering a wide range of

developmental, preventive and “remedial” interventions, including psychotherapy, psychoeducational interventions, crisis management and psychological/psychiatric emergency situations, depending on the focus and scope of the practicum site. |

- d. Knowledge regarding psychotherapy theory, research and practice. |
- e. Knowledge regarding the concept of empirically supported practice methods and relationships. A
- f. Knowledge regarding specific empirically supported treatment methods and activities. |
- g. Ability to apply specific empirically supported treatment methods (e.g. CBT, empirically supported relationships). |
- h. Assessment of treatment progress and outcome. |
- i. Linking concepts of therapeutic process and change to intervention strategies and tactics. |
- j. Effective use of supervision to implement and enhance skills. A

5. Consultation Skills/Interprofessional Collaborations:

The workgroup at the 2002 Competencies Conference viewed consultation as a key competency for psychologists in the 21st century, citing the importance of psychologists being able to “serve as competent and engaged consultants who bring value to a broad range of settings, contexts and systems that can benefit from skillful application [of] psychological knowledge” (Arredondo, Shealy, Neale, & Winfrey, 2004). Exposure to consultation practice has increased in many practicum sites. Competencies in this domain include:

- a. Knowledge of the unique patient care roles of other professionals. |
- b. Ability to effectively relate to other professionals in accordance with their unique patient care roles. |
- c. Understanding of the consultant’s role as an information provider to another professional who will ultimately be the patient care decision maker. |
- d. Capacity for dialoguing with other professionals which avoids use of psychological jargon. |
- e. Ability to choose an appropriate means of assessment to answer referral questions. |
- f. Ability to implement a systematic approach to data collection in a consultative role. |
- g. Consultative reports are well organized, succinct and provide useful and relevant recommendations to other professionals. |

6. Diversity - Individual and Cultural Differences

The APA Multicultural Guidelines (APA, 2003) noted that “All individuals exist in social, political, historical, and economic contexts, and psychologists are increasingly called upon to understand the influence of these contexts on

individuals' behavior" (p. 377). Thus every competency listed in this document is thoroughly linked to matters of individual and cultural difference (ICD), including knowledge related to ICD, as well as awareness of, respect for, and appropriate action related to ICD. It is critical that practicum students begin to learn that culture influences the way that clients are perceived, the way that clients perceive the counselor, and that culture-centered practices may be more effective than practices developed for use with only one cultural group (e.g., European Americans). Practicum students need to know how individual and cultural differences influence clients' recognition of a problem and appropriate solutions for that problem. Specific competency areas related to ICD are important to identify and train for include:

- a. Knowledge of self in the context of diversity (one's own beliefs, values, attitudes, stimulus value, and related strengths/limitations) as one operates in the clinical setting with diverse others (i.e., knowledge of self in the diverse world). I
- b. Knowledge about the nature and impact of diversity in different clinical situations (e.g., clinical work with specific racial/ethnic populations). I
- c. Ability to work effectively with diverse others in assessment, treatment and consultation. I

7. Ethics:

During the practicum, the student will build on coursework in ethical practice, developing individual, practical knowledge of ethical practice, including linkage of the APA ethics code (APA, 2002) to behavior and decision making in actual clinical settings. In addition, students should increase and apply their understanding of legal standards (state and federal, Se.g., HIPAA) and APA practice guidelines. Note that each of the domains described in this document is expected as a matter of course to be grounded in ethical practice. More specifically, during practicum training the student will work to develop the following ethical competencies:

- a. Knowledge of ethical/professional codes, standards and guidelines; knowledge of statutes, rules, regulations and case law relevant to the practice of psychology. I
- b. Recognize and analyze ethical and legal issues across the range of professional activities in the practicum setting. I
- c. Recognize and understand the ethical dimensions/features of his/her own attitudes and practice in the clinical setting. I
- d. Seek appropriate information and consultation when faced with ethical issues. A
- e. Practice appropriate professional assertiveness related to ethical issues (e.g., by raising issues when they become apparent to the student). I
- f. Evidence commitment to ethical practice. A

8. Development of leadership skills:

The 2001 Education Leadership Conference Practicum Competencies Workgroup identified beginning training in management and leadership skills as important. Presumably management and leadership skills are in evidence in any organized training setting; some deliberate effort to engage students in considering and practicing these skills in the practicum setting could foster their development. In particular, practicum students may gain beginning understanding and practice in leadership through leading research teams, mentoring newer students in vertical team settings, acting as Assistant Directors in clinics, participating in clinic discussions of organizational goals and policies regarding clinical, training and management activities. Note that beginning familiarity with these issues is expected at the end of the practicum, as indicated by the “N” or Novice level of competence in the right-hand column:

- a. Recognition of one’s role in creating policy, participation in system change, and management. N
- b. Understand the relationship between roles of supervisor, manager and executive. N
- c. Understand the role of leadership in management success. N
- d. Ability to identify leadership, business and management skills. N
- e. Understand the purpose and process of strategic planning. N
- f. Understand the basics of financial management as it pertains to clinical service delivery. N
- g. Understand the purpose and structure of meetings and how to run them well. N
- h. Ability to self-evaluate one’s skills as manager and leader. N

9. Supervisory Skills:

Supervision is widely considered to be a core competency in professional psychology (e.g., Falender et al., 2004) during the practicum, even though the core requirements for competent supervisory practice await the mastery of the other competencies listed in this document. Practicum programs are encouraged to consider how best to introduce students to this critical role. The basic groundwork that is specific to developing supervisory competency may be addressed to some extent in the practicum experience, including some exposure to the following areas. Note that beginning familiarity only with these issues is expected at the end of the practicum, as indicated by the “N” or Novice level of competence in the right-hand column:

- a. Knowledge of literature on supervision (e.g., models, theories & research). N
- b. Knowledge concerning how clinicians develop to be skilled professionals. N
- c. Knowledge of methods and issues related to evaluating professional work, including delivering formative and summative feedback. N
- d. Knowledge of limits of one’s supervisory skills. N

- e. Knowledge of how supervision responds appropriately to individual and cultural differences. N

10. Professional Development:

Practicum training is a key experience in professional development for the novice psychologist. Certain central features that characterize professional development in later professional life are a particular focus during the practicum, and serve as a foundation for continuing professional development. These can be gathered under the heading of:

a) Practical Skills to Maintain Effective Clinical Practice

The student will develop practical professional skills such as

- Timeliness: completing professional tasks in allotted/appropriate time (e.g., evaluations, notes, reports); arriving promptly at meetings and appointments. A
- Developing an organized, disciplined approach to writing and maintaining notes and records. A
- Negotiating/managing fees and payments. I
- Organizing and presenting case material; preparing professional reports for health care providers, agencies, etc. I
- How to self-identify personal distress, particularly as it relates to clinical work. I
- How to seek and use resources that support healthy functioning when experiencing personal distress. I
- Organizing one's day, including time for notes and records, rest and recovery etc. I

These features may be considered to be a focal subset of a broader group of skills related to the clinician's professional development that will continue throughout the career. This broader group includes:

b) Professional Development Competencies

- Critical thinking and analysis. I
- Using resources to promote effective practice (e.g., published information, input from colleagues, technological resources). A
- Responsibility and accountability relative to one's level of training, and seeking consultation when needed. A
- Time management. I
- Self-awareness, understanding, and reflection. I
- Self-care. I
- Awareness of personal identity (e.g., relative to individual and cultural differences). I
- Awareness of one's own beliefs and values as they relate to and impact professional practice and activity. A
- Social intelligence; ability to interact collaboratively and respectfully with other colleagues. A

- Willingness to acknowledge and correct errors. A
- Ability to create and conduct an effective presentation. I

11. Metaknowledge/ Metacompetencies – Skilled Learning

The training program should help students begin on the path of reflective understanding and knowledge about their own knowledge and competencies. A broadly drawn definition characterizes metaknowledge as *knowledge about knowledge – knowing what you know and what you don't know*. Metaknowledge includes being aware of the range and limits of what you know; knowing your own intellectual strengths and weaknesses, how to use available skills and knowledge to solve a variety of tasks, how to acquire new or missing skills, or being able to judge that a task can't be done with current knowledge.

Metacompetencies similarly refer to the ability to judge the availability, use and learnability of personal competencies. The development of metaknowledge and metacompetencies depends on self-awareness, self-reflection and self-assessment (Weinert, 2001). For psychologists, this would include:

a) Knowing the extent and the limits of one's own skills; learning the habit of and skills for self-evaluation of clinical skills. I

b) The ability to use supervision, consultation and other resources to improve and extend skills (note the related relationship competence – to work collegially and responsively with supervisors). A

c) Knowledge of the process for extending current skills into new areas. I

d) Knowledge of the epistemologies underlying various aspects of clinical practice (e.g., assessment, diagnosis, treatment). I

e) Commitment to life-long learning and quality improvement. A

f) Awareness of one's identity as a psychologist (Education Leadership Conference): an aspect and reflection of metaknowledge that is role specific, knowing what one knows and can do (and should do) as a psychologist. I

Conclusions

After review of the above eleven clusters of professional competences that are defined by APA, it is necessary to consider how do curricula for psychology in Serbia respond to these competences? The general overview of learning outcomes of Psychology programs at three Departments of Psychology (Belgrade, Novi Sad, Nis), shows that they present mostly general description of knowledge and skills. They do not describe professional competences in some organized clusters which are elaborated in details.

Beside general competences for psychologists, such as research skills or assessment, that are widely recognized, it is evident that some important competences are missing in the learning outcomes. For example, it would be necessary to clear out a link between assessment and treatment planning on

one hand, and treatment process, interventions and strategies on the other. Personality characteristics are not mentioned anywhere in the curricula, while relationship skills are mainly focused at client. Greater focus on interpersonal skills with colleagues, supervisors or other professionals would increase professional effectiveness and decrease misunderstanding in work settings. It is also important to emphasize consultation skills and interprofessional collaborations, as well as development of leadership skills which can enable more influential role of psychologist in contemporary society. Finally, supervisory skills, skills for professional development, such as self-awareness, reflection or self-care and metacompetencies for skilled learning would lead to on-going professional development after formal education.

Present review indicates that there are no clear differences between levels of bachelor, master and doctoral studies, except that programs are much more methodology oriented, preparing psychologists for scientific research at higher level of studies. It seems to be "more of the same", while the practice is almost completely neglected.

Evidently, the main problem is the lack of training practicum, particularly at the higher level of studies. Training programs for clinical psychology across Western countries usually last three years with approximately 500 hours of practical work at each year of study. A similar option in in Serbia is Specialization in Medical psychology⁷ at School of Medicine. Unfortunately, the program has been implemented without participation of Department of psychology and professional organization of psychologists. Furthermore, the program of studies is not clearly defined and supervision has been carried out without specific guidelines which is of significant concern.

The last question pertains to lack of assessment methods for measuring levels of accomplishing these competences⁸. Unlike Serbian programs, other programs utilize numerous rating methods for monitoring and evaluation levels of professional performance, such as: Annual review, Case reviews, Process/outcome data, Rating forms, Consumer surveys, Objective structured clinical examinations, Portfolio reviews, Ratings performance, Record reviews, Self-assessment, Simulations/role plays, Standard patient interviews, Standard oral exams, Written exams, etc.

The issues that were discussed in the paper emphasize the importance of collaborations of all stakeholders, such as university professors, practitioners and professional organization, in the process of conceptualizing competences and enabling condition for their development and implementation. Clear definition

⁷ The official name of education is The Specialization in Medical psychology. The term Medical should be replaced with term Clinical Psychology, since it has not been used any more

⁸ For detailed description of Assessment methods see in Kaslow, N.J., Grus, C.L., Campbell, L.F., Fouad, N.A., Hatcher, R.L., Rodolfa, E.R. (2009). Competency assessment toolkit for professional psychology. *Training and Education in Professional Psychology*. Vol 3(4, Suppl), Nov 2009, S27-S45. doi: 10.1037/a0015833.

of core competencies for psychologists and the learning outcomes of psychology studies could be the starting point for improvement of professional practice quality and collaboration with other professionals. This would also increase public's appreciation of our profession and its influence in the society.

References

- Hatcher, R. L. & Lassiter, K. D. (2007). Initial training in professional psychology: The Practicum Competencies Outline. *Training and Education in Professional Psychology, Vol. 1*, 49-63.
- Kaslow, N.J., Grus, C.L., Campbell, L.F., Fouad, N.A., Hatcher, R.L., Rodolfa, E.R. (2009). Competency assessment toolkit for professional psychology. *Training and Education in Professional Psychology, Vol. 3*, 27-45.
- The Practicum Competencies Outline: Report on Practicum*, Association of Directors of Psychology Training Clinics (ADPTC) Practicum Competencies Workgroup, The Council of Chairs of Training Councils Practicum Competencies Workgroup. Robert L. Hatcher, Ph.D. & Kim Dudley Lassiter, Ph.D. (2006) [https://aptc.org/public_files/Practicum%20Competencies%20FINAL%20\(Oct%20'06%20Version\).pdf](https://aptc.org/public_files/Practicum%20Competencies%20FINAL%20(Oct%20'06%20Version).pdf)

Tamara Džamonja Ignjatović

Univerzitet u Beogradu,

Filozofski fakultet i Fakultet političkih nauka

OBRAZOVNE KOMPETENCIJE PSIHOLOGA ZA SAVREMENO DOBA

Sažetak

Definisanje osnovnih kompetencija psihologa i ishoda učenja psiholoških studija moglo bi biti polazna osnova za poboljšanje nastavnih planova i programa univerziteta, programa obuke i, prema tome, unapređenja saradnje u stručnoj praksi sa drugim stručnjacima u najboljem interesu naših klijenata i naše profesije. U ovom radu, pregled kompetencija psihologa zasnovan je na APA lizveštaju o praktičnim kompetencijama Udruženja direktora klinika za psihološku obuku (ADPTC). Na kraju će biti reči o tome kako nastavni programi psihologije na univerzitetima u Srbiji rešavaju ove kompetencije i identifikovati nedostajuće znanje i veštine koje bi trebalo da budu integrisane u programe studija i praktičnih vežbi kako bi se poboljšala naša praksa za savremeno doba.

Ključne reči: kompetencije psiholga, ishodi učenja psihologije, faze razvoja komepetencija, programi treninga, metode procene ishoda učenja

SCHEMA THERAPY – A NEW OUTLOOK AT MODERN AGE PROBLEMS AND “OLD” DISORDERS

Abstract

Modern age, brought many changes. It seems that we had never communicated more and connected less. In just 20 years (1985-2005) an average number of close people one had, reduced from 2.94 to 2.08 people. At the same time, the number of people who have no one to share important news with tripled. Parenting practices changed leaving an increase in number of entitled, dependent and overprotected children. Being liked by others became more important than authenticity, while fame became more valued than achievement. It is hypothesized that these changes contributed to the growth in personality disorders, depression and loneliness. It is therefore important that psychologists develop competencies for addressing these issues. Knowledge derived from Schema therapy could help meet this goal. Schema therapy is an integrative approach unifying elements from cognitive-behavioral, psychodynamic and humanistic schools. A number of studies support its effectiveness in treating a variety of disorders including personality disorders which were previously predominantly considered non-treatable. Schema Therapy is also, associated with higher levels of patient satisfaction thus benefiting both clients and therapists. This paper presents Schema therapy and how it could help enhance competencies of psychologist working with modern age problems and disorders.

Key words: Schema therapy, world today, competencies for psychologists, personality disorders

The world today – the context in which psychologists work

Every period has its own challenges and its own problems. We cannot therefore claim that the world today is worse than it has previously been. There are however many factors that could make us worry and that might petition for new and different competencies in psychologists. Some of the factors that we should take into account are:

- An overall increased instability inducted by poverty, wars, terrorist threats, migrations, climate changes and so forth.
- Work related stressors such as: work insecurity and unemployment, mobbing, extended working hours, information overload, increased

¹ Corresponding author tijana.mirovic@gmail.com

or unclear efficiency and performance related demands, unhealthy competition, work - life imbalance etc.

- Changes in family structure and its functioning –disintegration of traditional marriage and the family; decrease in “family time” and reduced parental contact due to increased financial pressure on parents; parenting practices that moved toward entitlement, prolonged dependence and overprotection.
- Lack of free and “me time” due to “frantic pace of life”. According to British psychologist, Dr. Richard Wiseman, the overall pace of life has increased by 10% worldwide since the mid-90’s. In some places, it has even increased by 20%. As a result, we are left time-crunched, stressed, and overwhelmed (Hohlbaum, 2009). Degges-White (2018) says that it’s the culture of “busy-ness” that is keeping young people from enjoying “hang time” or “down time” with others. According to her, there is a cultural message that “free time” was verboten and all activities had to be goal-oriented. College students report that they may be surrounded by peers, but they don’t have time to make the kind of one-on-one deep connections that are key to feeding our social hunger.
- Dominance of inadequate (tabloid) media and a dramatic increase in violent and sexually explicit material (TV programs, movies, video games, easy access online, etc.). In addition to this social media fosters a certain kind of pressure and promoted likes before authenticity and fame or status before achievement. Morin (2018) says that there’s a lot of pressure to make your life look better than it really is on social media. So rather than share what’s really going on, you’re more likely to talk about your latest accomplishment, awesome vacation, or best meal. The need to keep up the façade that everything is perfect often spills over into real life and keeps relationships superficial. (ibid.).
- Being exposed to the lack of norms and the multitude of opinions for “everything is normal and all the options are acceptable as long as they make us happy”. And, “being happy is a must”. Flora (2009) confirms this by finding that in 2008 4,000 books were published on happiness, while a mere 50 books on the topic were released in 2000. Yet according to some measures, Americans have grown sadder and more anxious during the same years that the happiness movement has flourished (ibid.). This could be tied to choices as well. Intuitively, we seem convinced that the more choices we have, the better off we’ll ultimately be. But our world of unlimited opportunity imprisons us more than it makes us happy. Facing many possibilities leaves us stressed out—and less satisfied with whatever we do decide. Having too many choices keeps us wondering about all the opportunities missed (Flora, 2009).
- The value system is changing in such a way that we see an increase in materialism and declined value of Education, Community and

Spirituality, Personal relationships, socialization and social connection. Schwartz (2017) explains that the cultural paradigm in which we live leaves us disconnected, disenchanting and isolated. When this occurs, we tend to honor and seek material acquisitions at the cost of devoting ourselves to intimate and loving relationships—with others and ourselves (ibid.).

Reduced personal and social connection tend to be especially problematic because they lead to lack of social support. It seems that we had never communicated more and connected less. Our relationships have grown more superficial (Morin, 2018). Face-to-face interactions are reduced and although there is ample communication there appears to be very little connection. In just 20 years (1985-2005) an average number of close people one might have, reduced for one whole person (from 2.94 to 2.08 people). At the same time, the number of people who have no one to share important news with tripled (Divac Jovanović & Švrakić, 2016). Due to all of this, there is a growing need for professional support and yet, the mental health industry has numerous problems on its own as well.

As we know, there is limited access to free psychological counseling. Psychologists, psychotherapists and psychiatrist who work in free / state run facilities have too many patients. In Serbia, a psychiatrist can see up to 30 patients per shift, which often means that the treatment is reduced to pure pharmacotherapy and more medication. The psychological counseling and psychotherapy had been affected as well. If these services are paid by the insurance, psychologist and psychotherapists can offer only a limited and in many cases insufficient number of sessions. In addition to this they have to adhere to strict treatment protocols which as such were not tailored to fit an individual case. These takes out a lot from the therapy process and the therapy relationship. Another thing that impedes the quality of therapy and counseling is the emergent idea that “everybody can do it”, meaning that everybody, even people who are not trained psychologists, psychiatrists or psychotherapists could be “mental health experts”. Divac Jovanović & Švrakić (2016) addressed yet another significant problem within the mental health industry pointing out that in 1952 DSM listed 130 disorders and 180 diagnoses, while DSM 5 (2013) included 400 disorders and 800 diagnoses. The authors attribute this to “Medicalization of life” – the existing tendency to diagnose and treat normal emotional reactions (i.e. Breakups) or normal life stage (i.e. Menopause).

Above mentioned factors and problems raise the following questions: What are the consequences of all these changes and tendencies? Are mental health problems and disorders more frequent? Are they really different? Are there new problems or are we indeed just medicalizing life and the existing “new trends”?

If we look at the popular media, we see increasing number of texts that cover “new” topics such as “frenetic pace of life”; empty and robotic life that is in discordance with our values; isolation and loneliness that occurs at all ages and so on. The loneliness has become such an issue that psychologists (see Degges-

White, 2018 and Degges-White, 2018a) coined the terms “Loneliness Pandemic” or “Generation Lonely” (for young adults). This intensification of loneliness and its link with stress related issues, anxiety, depression, personality disorders and addictions, meant that these “old” topics get a lot of media coverage as well. The reason media talks about it is because we see an increase in various mental health problems and disorders.

A report released in 2011 by the National Center for Health Statistics (NCHS) confirms this by stating that the rate of antidepressant use in US among teens and adults (people ages 12 and older) increased by almost 400% between 1988–1994 and 2005–2008 (Wehrwein, 2011). At the same time, we witnessed an increase in personality disorders and addiction, as narcotics became cheaper, easily accessible, generally more accepted and even legalized. In psychotherapy (especially Schema therapy that we will address later on) we see this as a way to self-soothe when basic needs for connection are not being met. Drinking and overeating serves the same goal, so it is not wonder that we see a growth in these problems as well. So much so, that Binge Eating Disorder has been included as an actual eating disorder diagnosis in the DSM-5.

National Survey on Drug Use and Mental Health states that nearly 20% of the youth and adult population suffer from some type of mental illness. This is up from 18.1 percent just a few years ago. The situation is even more worrisome when it comes to children and youth. The percentage of youth suffering from mental disorders is even higher than the most frequent major physical conditions in adolescence, including asthma or diabetes. Citizens commission for human rights found that twenty million school children worldwide have now been diagnosed with mental disorders and prescribed cocaine-like stimulants and powerful antidepressants as treatment. At the same time, the number of children and teens admitted to children’s hospitals for thoughts of suicide or self-harm have more than doubled during the last decade (AAP News, 4 Oct. 2017). American College Health Association (2016) confirms this by finding that 13% of students seriously considered suicide, this being 3.5% higher than in 2013. In Serbia in 2017, 646501 people took prescribed anxiolytics, medications for neuro-psychological disorders took up 13% of all prescribed medication (National Health Insurance Fund, 2017).

Seeing these numbers and how they rose in the last decade or so, suggest that the factors described at the beginning really are the risk factors for mental health. The magnitude of the numbers of diagnoses, patients of all ages and the medications prescribed suggest that we as mental health professionals need to act as soon as possible, on all levels of prevention. The question we need to ask ourselves is, do we know how to act? Do we have approaches and techniques suitable to treat problems linked to the world today? Also, do current times ask for new approaches when addressing the old – well known problems (i.e. personality disorders). We cannot give exact answers to these questions but, as psychotherapists we experienced the need for therapy approach that would go beyond the decrease in symptoms. We need a therapy that would work on

improving an overall quality of life. We need a therapy that addresses life values and basic needs; a therapy that addresses a variety of problems and uses various techniques. We need integration and something applicable outside the therapy room (in schools, offices, society, media...). In addition to all of this we need well trained psychotherapist who specialize in trauma, personality disorders and addictions. We believe that Schema therapy (Young, 1990) could be a good answer to all of these needs.

Introduction to Schema therapy

Schema therapy (ST) was developed by Jeffrey E. Young (1990) as a treatment for resistant (previously “non-treatable” disorders). It is an integrative approach, bringing together element from Cognitive-behavioral therapy, Attachment and object relations theories, Gestalt and experiential techniques. Schema therapy places great emphasis on the therapist-patient relationship providing within it both a corrective emotional experience and empathic confrontation. Also, it sets a clear goal to which a therapist should aspire: helping patients understand their core emotional needs and learn ways of getting those needs met in an adaptive manner. This requires altering long-standing cognitive, emotional, relational and behavioral patterns (Rafaeli, Bernstein & Young, 2011).

Schema therapy integrates theory, diagnostics, treatment, prevention and research. Young developed the conceptual model of ST focused on individual therapy (Young, Klosko & Weishaar, 2003) and at the same time, Farrell and Shaw (1994) developed a group model. Recently, adaptations of ST for children and adolescents (Loose, Graf & Zarbock, 2013) and couples (Simone-DiFrancesco, Roediger & Stevens, 2015) have been developed (Farrell & Shaw, 2018). As it developed, Schema therapy found its application within various settings such as: private practice, inpatient, day hospitals, prisons, retreats, schools, communities, business organizations and even media (see below). Development in its application and treatment, went along side vast research resulting in numerous validation studies that proved Schema therapy’s effectiveness with a variety of symptoms.

The effectiveness of Schema therapy for patients with **Borderline personality disorder** (BPD) has been validated empirically in several large-scale studies of individual (Giesen-Bloo, van Dyke, Spinhoven, van Tilburg, Dirksen, van Asselt, Kremers, Nadort & Arntz, 2006; Nadort, Arntz, Smit, Giesen-Bloo, Eikelenboom, Spinhoven, van Asselt, Wensing, & van Dyck, 2009) and group ST (randomized control trial done by Farrell, Shaw & Webber, 2009). Schema therapy resulted in a higher rate of recovery², greater declines in depression, greater increases in general and social functioning and had a lower

² For example, full recovery from BPD in 46% of patients and 52% after a one year follow up (Giesen-Bloo et al., 2006)

dropout rate. Schema therapy has also demonstrated effectiveness in a large multisite trial for **Cluster C disorders** (Bamelis, Evers, Spinhoven & Arntz, 2014), a study of **Posttraumatic stress disorder** (Cockram, Drummond, & Lee, 2010), **Avoidant personality disorder and social phobia** (Baljé, Greeven, van Giezen, Korrelboom, Arntz, & Spinhoven, 2016), **depression** (Renner, Arntz, Peeters, Lobbestael, & Huibers, 2016; Malogiannis, Arntz, Spyropoulou, Tsartsara, Aggeli, Karveli, 2014), **dissociative identity disorder** (Shaw, Farrell, Rijkeboer, Huntjens, & Arntz, 2015), **mixed personality disorder** (Muste, Weertman, & Classen, 2009; Simpson, Skewes, van Vreeswijk, & Samson, 2015) and one for **forensic clients with personality disorders** (Bernstein, Nijman, Karos, Keulen- de Vos, de Vogel & Lucker, 2012). The effectiveness of ST reported in these studies includes improved function and quality of life as well as reductions in key symptoms and global severity of psychopathology (Farrell & Shaw, 2018). Schema therapy is also cost-effective (van Asselt, Dirksen, Arntz, Giesen- Bloo, van Dyck, Spinhoven, 2008) and rated positively by both clients and therapists (De Klerk, Abma, Bamelis & Arntz, 2017). It is also, associated with better therapy alliance and higher levels of patient satisfaction (Spinhoven, van Dyck, Giesen-Bloo, Kooiman, & Arntz, 2007).

As we could see, Schema therapy proved to be highly effective in both reduction of various symptoms and improvement of quality of life. In the following part of the paper we will look more into ST and what this approach could offer to psychology and to psychological competency building.

Schema therapy - key concepts and basic assumptions

Schema therapy postulates that a child is born with basic (core) needs and temperament. Childhood environment interacts with temperament and needs and if it interacts in such a way that needs are not being met that would lead to the formation of: Early Maladaptive Schemas (there is 18 of them³), Schema Modes (10 of them) and three Maladaptive coping styles. These further lead to different symptoms and problems (above all relational problems).

Schema therapy model asserts that the etiology of difficulties in adult life lies in the extent to which the core developmental needs of childhood go unmet (Farrell & Shaw, 2018). These **basic needs** are for: 1. Secure attachments to others (includes safety, stability, nurturance, and acceptance) 2. Autonomy, competence, and sense of identity 3. Freedom to express valid needs and emotions 4. Spontaneity and play 5. Realistic limits and self-control (Young et al., 2003).

Generally speaking, there are four types of early life experiences that frustrate these basic needs and foster the acquisition of schemas. The first is toxic frustration of needs. This occurs when the child's environment is missing something important, such as stability, understanding, or love. The second type of early life experience is traumatization or victimization. In the third type, the child

³ A full list and description of schemas could be found in Mirović (2015)

experiences too much of a good thing - the parents may be overly involved in the life of a child, may overprotect a child, or may give a child an excessive degree of freedom and autonomy without any limits. Therefore, the child's core emotional needs for autonomy or realistic limits are not met. Finally, the fourth type of life experience that creates schemas is selective internalization or identification with significant others (Young et al., 2003).

These kinds of experiences frustrate basic needs leading to the formation of **Early Maladaptive Schemas** (EMS) that include memories, bodily sensations, emotions, and cognitions. Young (2003) defines schemas as dysfunctional, broad, pervasive themes regarding oneself and one's relationship with others, developed during childhood and elaborated throughout one's lifetime. All new information tends to be elaborated through schema and is changed accordingly. Without schema, the world lacks meaning and certainty and the person feels that "it is who they are". Therefore, schemas tend to be very difficult to change as the person maintains them with cognitive distortions, inadequate interactions, dysfunctional behavioral patterns (i.e. Choice of a partner) and Maladaptive coping styles. All of this leading to further frustration of needs.

Maladaptive Coping modes consist primarily of actions or behaviors and are defined as an overuse of survival- based coping styles: fight (Overcompensation), flight (Avoidance), and freeze (Surrender). All three coping styles have the goal of protecting the person from experiencing distress (e.g., sadness, anxiety, anger, fear). Because these modes usually operate outside of conscious awareness, a goal of ST is to help clients become aware of their use and to replace them with healthier, more adaptive responses so to get their needs met as adults (Farrell & Shaw, 2018).

In addition to Maladaptive coping modes, there are three other groups of **Schema modes**: Innate Child modes, Dysfunctional Critic / Parental modes and Healthy adult modes⁴. Schema modes are defined as the current emotional, cognitive, behavioral, and neurobiological states that are currently activated. They are the predominant state that person experiences at any given point in time. They reflect aspects of self that are not entirely integrated (Farrell & Shaw, 2018) and a person flips from mode to mode in response to external and internal stimuli.

To sum up the cycle - External and internal stimuli (situations, thoughts, feelings and memories) activate Early Maladaptive Schemas and trigger Schema modes (usually Child or Critic modes). As this is overwhelming, we then tend to flip into one of the coping modes. As a result, adult needs are not met and / or negative consequences occur and psychological problems and disorders develop (Farrell & Shaw, 2018).

In order to prevent and treat all this schema therapists use a vast assortment of Cognitive, Behavioral and Experiential techniques (mainly Imagery rescripting and Chairwork) while constantly working through therapy relationship using

⁴ More on modes – their description, function etc. could be found in Mirović (2015, 2010)

of Limited reparenting, Empathic confrontation and psychoeducation which promotes transparency, awareness, normalization and validation⁵.

Schema therapy and other fields – adding to competencies for psychologists

Looking at major fields of psychology on one and Schema therapy on the other side, we see significant commonalities and tools that Schema therapy could be contributing to these fields and the competences needed. In the sections that follows we will briefly list some of the know-how that Schema therapy has to offer to each of these fields.

- Clinical psychology – Tools for assessment, treatment and relapse prevention; Preventive program (“Good enough parenting”; Lewis & McDonald Lewis, 2015); Redefining disorders; Working within the therapeutic relationship; Working with therapist’s schemas and modes.
- Psychology of attachment – Deeper understanding of Basic needs, Inner working models and their correlates (Hadžić & Mirović, 2016)
- Developmental psychology – Role of basic needs and parenting; Preventive training program (“Good enough parenting); Development of coping mechanisms; Emotional schemas; Assessment (Mirović, 2010)
- Family psychology – Links between parenting styles / behaviors and (mal) adaptive schemas (Mirović, 2010; Hadžić & Mirović, 2016); Preventive program – „Good enough parenting“; Circular models and ST for couples.
- Psychology of personality – Individual differences in Schemas and Modes, correlates with personality dimensions (Mirović & Mešković, 2017)
- Psychometrics and research – Number of Schema Therapy Institute’s instruments that asses schemas, modes and coping stiles: Young Schema Questionnaire – Long Form, 3rd Edition (YSQ–L3); Young Schema Questionnaire – Short Form, 3rd Edition (YSQ-S3); Schema Mode Inventory (SMI - 1.1); Young Parenting Inventory (YPI); Young – Rygh Avoidance Inventory (YRAI); Young Compensation Inventory (YCI)⁶; Dusseldorf Illustrated Schema Questionnaire for Children (YCI).
- Organizational psychology – Schemas and modes “at work”; Tools to work with Narcissistic and Avoidant behavior; The role of early experiences in our professional role (see Poul Perris’s project below).
- Educational psychology – Teachers and schemas; Student’s behavior and modes (Mirović, Mešković, Bogunović, 2018), Schema clashes.
- Nonverbal communication – Link with triggers, schemas and modes, Reparenting with nonverbal.

⁵ More on these techniques could be found in Mirović (2015, 2010)

⁶ For references and more information on the questionnaires see Schema Therapy Institute website <https://www.schematherapy.org/>

- Psychology of Art – Schemas and modes in Musicians (Mirović & Bogunović, 2013; Mirović, Mešković, Bogunović, 2018), Clients artistic expressions, Creativity
- Social Psychology – Societal factors and schemas, Cultural element, Leadership, Media.

An interesting example of this was done by Schema therapist Poul Perris who had two major media project for Swedish TV. In order to decrease stigma and emotional inhibition, in 2012 he filmed and broadcasted couple's therapy in real time. Then before the Swedish elections in 2014 he introduced a TV show that presented Schema therapy-based psychotherapy interview with prime minister candidates. Some of the questions that he asked each candidate were: 1. What were their childhood experiences and how they influenced their personal values? 2. What brought them to politics and was that somehow connected to their childhood experiences? And were their personal values synced with values of their political party?⁷

As we can see, Schema therapy has a lot to offer to psychology. Knowing more about this evidence-based treatment and approach could enrich psychologists' competences. Being that it works on fulfilment of basic needs, including the one for connections and autonomy, and being that it proved to be so effective with personality disorders, depression and addictions we believe that this could be a very good and much needed approach for addressing both modern age problems and the "old" disorders.

Literature

- AAP News, 4 Oct. 2017. Retrieved from <https://pediatrics.aappublications.org/content/140/4>.
- American College Health Association, National College Health Assessment (2016). *Fall 2016 Reference Group Executive Summary*. Retrieved from https://www.acha.org/documents/ncha/NCHA-II_FALL_2016_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf
- Balje, A., Greeven, A., van Giezen, A., Korrelboom, K., Arntz, A., & Spinhoven, P. (2016). Group schema therapy versus group cognitive behavioral therapy for social anxiety disorder with comorbid avoidant personality disorder: Study protocol for a randomized controlled trial. *Trials*, 17, 487.
- Bamelis, L. M., Evers, S., Spinhoven, P., & Arntz, A. (2014). Results of a multicenter randomized controlled trial of the clinical effectiveness of schema therapy for personality disorders. *American Journal of Psychiatry*, 171(3), 305–322.
- Bernstein, D. P., Nijman, L. I., Karos, K., Keulen- de Vos, M., de Vogel, V., & Lucker, T. P. (2012). Schema therapy for forensic patients with personality disorders: Design and preliminary findings of a multicenter randomized clinical trial in the Netherlands. *International Journal of Forensic Mental Health*, 11, 312–324.

⁷ We presented video parts of these interviews as a part of the keynote.

- Cockram, M. D., Drummond, P. D., & Lee, W. C. (2010). Role and treatment of early maladaptive schemas in Vietnam veterans with PTSD. *Clinical Psychology and Psychotherapy*, 17, 165–182.
- Degges-White, S. (2018). Are Today's Young Adults Becoming "Generation Lonely"? Understanding loneliness in a culture that values product over process. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/lifetime-connections/201808/are-todays-young-adults-becoming-generation-lonely>
- Degges-White, S. (2018a). Are Parents to Blame for #GenerationLonely. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/lifetime-connections/201811/are-parents-blame-generationlonely>
- De Klerk, N., Abma, T. A., Bamelis, L., & Arntz, A. (2017). Schema therapy for personality disorders: A qualitative study of patients' and therapists' perspectives. *Behavioural and Cognitive Psychotherapy*, 45(1), 31–45.
- Divac Jovanović, M. i Švrakić, D. (2016). *Granična ličnost i njena različita lica*. Beograd: Clio.
- Farrell, J. M., & Shaw, I. A. (2018). *Experiencing Schema Therapy from the Inside Out. A Self-Practice / Self-Reflection Workbook for Therapists*. New York, London: The Guilford Press.
- Farrell, J. M., Shaw, I. A., & Webber, M. (2009). A schema- focused approach to group psychotherapy for outpatients with borderline personality disorder: A randomized controlled trial. *Journal of Behavior Therapy and Experimental Psychiatry*, 40, 317–328.
- Farrell, J. M., & Shaw, I. A. (1994). Emotional awareness training: A prerequisite to effective cognitive- behavioral treatment of borderline personality disorder. *Cognitive and Behavioral Practice*, 1, 71–91.
- Flora, C. (2009). The Pursuit of Happiness. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/articles/200901/the-pursuit-happiness>
- Giesen-Bloo, J., van Dyke, R., Spinhoven, P., van Tilburg, W., Dirksen, C., van Aselt., Kremers, I., Nadort, M., & Arntz, A. (2006). Outpatient psychotherapy for borderline personality disorder: Randomized trial of schema focused therapy vs. transference-focused therapy. *Archives of General Psychiatry*, 63, 649–658.
- Hadžić, A. i Mirović, T. (2016). *Afektivna vezanost, Rane maladaptivne sheme i stresna iskustva*. Banja Luka: Filozofski fakultet.
- Hohlbaum, C. L. (2009). How can we keep up in this fast-paced world?. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/the-power-slow/200911/how-can-we-keep-in-fast-paced-world>
- Lewis, J.P. & McDonald Lewis, K. (2015). *Good enough parenting*. New York: Morgan James Publishing.
- Loose, C., Graf, P., & Zarbock, G. (2013). *Schematherapie mit Kindern und Jugendlichen*. Weinheim, Germany: Beltz.
- Malogiannis, I. A., Arntz, A., Spyropoulou, A., Tsartsara, A., Aggeli, A., Karveli, S. (2014). Schema therapy for patients with chronic depression: A single case series study. *Journal of Behavior Therapy and Experimental Psychiatry*, 45, 319–329.

- Mirović, T., Mešković, D., Bogunović, B. (2018). Psihološki profil kao psihološki „identitet“ muzičara? / Psychological Profile as Musicians' Psychological „Identity“?. *Thematic proceedings from the 20th pedagogical forum of the performing arts. Belgrade, September 29 – October 1, 2017*. Belgrade: Faculty of Music.
- Mirović, T. & Mešković, D. (2017): Explaining Early Maladaptive Schemas (EMSS): Connections between ems and basic personality dimensions, affective attachment styles and empathy, in Columbus, A. M. (Ed.) *Advances in Psychology Research* (45-82). New York: Nova Science Publishers Inc.
- Mirović, T. (2015). Shema terapija, in Vukosavljević Gvozden, T. (Ed.) *Kognitivno bihevioralne terapije danas: Razvoj i promene* (101-125). Beograd: Institut za psihologiju.
- Mirović, T & Bogunović, B. (2013). Muzičko obrazovanje i mentalno zdravlje studenata muzike. *Zbornik instituta za pedagoška istraživanja*, 45, 2, 445-463.
- Mirović, T. (2010). *Rane maladaptivne sheme – sheme koje prave probleme*, Beograd: Zadužbina Andrejević.
- Morin, A. (2018). Why the Internet Has Made Us Lonelier Than Ever. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/what-mentally-strong-people-dont-do/201810/why-the-internet-has-made-us-lonelier-ever>
- Muste, E., Weertman, A., & Claassen, A. M. (2009). *Handboek Klinische Schematherapie. Houten*, The Netherlands: Bohn Stafleu van Loghum.
- Nadort, M., Arntz, A., Smit, J., Giesen-Bloo, J., Eikelenboom, M., Spinhoven, P., van Asselt, T., Wensing, M., & van Dyck, R. (2009). Implementation of outpatient schema therapy for borderline personality disorder with versus without crisis support by the therapist outside office hours: A randomized trial. *Behavior Research and Therapy*, 47 (11), 961–973.
- National Survey on Drug Use and Mental Health. Retrieved from <https://nsduhweb.rti.org/respweb/homepage.cfm>.
- Rafaeli, E., Bernstein, D. P., & Young, J. (2011). *Schema Therapy*. New York, Routledge.
- Renner, F., Arntz, A., Peeters, F. P., Lobbestael, J., & Huibers, M. J. (2016). Schema therapy for chronic depression: Results of a multiple single case series. *Journal of Behavior Therapy and Experimental Psychiatry*, 51, 66–73.
- Schema Therapy Institute website <https://www.schematherapy.org/>
- Schwartz, M. (2017). *The Possibility Principle*. Bolder, CO: Sounds True.
- Simone- DiFranscesco, C., Roediger, E., & Stevens, B. (2015) *Schema therapy for couples*. Oxford, UK: Wiley– Blackwell.
- Simpson, S. G., Skewes, S. A., van Vreeswijk, M., & Samson, R. (2015). Commentary: Short-term group schema therapy for mixed personality disorders: An introduction to the treatment protocol. *Frontiers in Psychology*, 6, 609.
- Shaw, I. A., Farrell, J. M., Rijkeboer, M., Huntjens, R., & Arntz, A. (2015). *An experimental case series of schema therapy for dissociative identity disorder*. Unpublished protocol, Maastricht University, The Netherlands.
- Spinhoven, P., van Dyck, R., Giesen-Bloo, J., Kooiman, K., & Arntz, A. (2007). The therapeutic alliance in schema-focused therapy and transference-focused psychotherapy for

- borderline personality disorder. *Journal of Consulting and Clinical Psychology*, 75, 104–115.
- van Asselt, A. D., Dirksen, C. D., Arntz, A., Giesen- Bloo, J. H., van Dyck, R., Spinhoven, P., et al. (2008). Outpatient psychotherapy for borderline personality disorder: Cost-effectiveness of schema- focused therapy vs. transference- focused psychotherapy. *British Journal of Psychiatry*, 192(6), 450–457.
- Wehrwein, P. (2011). *Astounding increase in antidepressant use by Americans*. Retrieved from <https://www.health.harvard.edu/blog/astounding-increase-in-antidepressant-use-by-americans-201110203624>.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy – A practitioner’s guide*. New York: The Guilford Press.
- Young, J. E. (1990). *Cognitive therapy for personality disorders: A schema-focused approach*. Sarasota: Professional Resource Press.

Tijana Mirović

*Univerzitet umetnosti Beograd, Fakultet muzičke umetnosti,
Psihološko savetovalište Mozaik;
Centar za Shema terapiju Beograd*

HEMA TERAPIJA – NOVI POGLED NA PROBLEME SAVREMENOG DOBA I “STARE” POREMEĆAJE

Sažetak

Savremeno doba, donelo je mnogo promena. Čini se da nikada nismo više komunicirali i manje se povezali. U samo 20 godina (1985-2005) prosečan broj bliskih ljudi koje neko ima smanjen je sa 2,94 na 2,08. Istovremeno, utrostručio se broj ljudi koji nemaju sa kime da podele važne vesti. Praksa roditeljstva se promenila što je povećalo broj dece kojoj se daje sve više prava, koja su zavisna i prezaštićena. Biti voljen od drugih postalo je važnije od autentičnosti, dok je slava više vrednovana nego dostignuće. Pretpostavlja se da su ove promene doprinele porastu poremećaja ličnosti, depresije i usamljenosti. Zbog toga je važno da psiholozi razviju kompetencije za rešavanje ovih pitanja. Znanje dobijeno iz šeme terapije može pomoći u postizanju ovog cilja. Šema terapija je integrativni pristup koji objedinjuje elemente kognitivno-bihevioralnih, psihodinamičkih i humanističkih škola. Brojne studije podržavaju njegovu efikasnost u lečenju različitih poremećaja, uključujući poremećaje ličnosti koji su se pretežno smatrali neizlečivim. Šema terapija je takođe povezana sa višim nivoom zadovoljstva pacijenata čime koristi i klijentima i terapeutima. Ovaj rad predstavlja Šema terapiju i načine na koje bi mogla poboljšati kompetencije psihologa koji radi sa savremenim problemima i poremećajima

Ključne reči: Šema terapija, svet danas, kompetencije psihologa, poremećaji ličnosti

REGULATIONS OF PSYCHOLOGISTS' PROFESSION AND THEIR EDUCATION IN GREECE AND SERBIA¹

Abstract

Regulating the profession of psychologist still remains an ongoing process, even though psychology as a science had been differentiated as an independent scientific system at the end of the nineteenth century. Based on the European framework of psychologist profession regulations, and comparison of the professional status of Greek and Serbian psychologists, the connection between psychologists' professional status and their university education in both countries is compared. Comparison of university programmes shows that education of psychologists in Greece and Serbia is based on different traditions: in Serbia, the first department of psychology was founded at the University of Belgrade in 1924; in Greece, the first department of psychology was founded at the University of Crete in Rethymnon in 1984. Currently there are more state/public recognized programmes at bachelor level in Serbia (eight programmes at state universities with 368 students in first year, three programmes at private universities), than in Greece (four programmes at the state universities with 625 students in first year, eight programmes at the private universities), whereas there are similar opportunities at master and Ph.D. levels. While curricula at state universities in Serbia have more traditional orientation and curricula at private universities have a significant differentiation to specific practice areas, in Greece curricula at the bachelor level are similar while master curricula are very diverse, in some cases very interdisciplinary. Finally, the structure and outcomes of university programmes in psychology reflect a different regulation and professional status of psychologists in Greece and Serbia. The diversity of approaches to psychologists' education enables further development of the profession.

Key words: psychologist's education, regulations of psychologist's profession, Greek psychologists, Serbian psychologists.

Introduction

The concept of professionalization of the psychologist work is based on the international tendency to recognize and protect some professions. „The concept of 'professionalization' is commonly used to describe how occupations become

¹ The paper is the part of the project OI 179026 "Teaching and learning – status, problems, and perspectives", which is supported by the Ministry of education, science and technological development of the Republic of Serbia.

recognized as ‘professions’, and how they go about consolidating this status and improving their services” (Neal & Morgan, 2000). Regulating the profession of psychologist still remains an ongoing process, even though psychology as a science had been differentiated as an independent scientific system at the end of the nineteenth century. The concept of regulating the profession of psychologist is based on the European standards for the psychological profession (the standards are developing), (The British Psychological Society, 2016), and competency model (Hatcher, Fouad, Campbell, McCutcheon, Grus, & Leahy, 2013; Rodolfa, Baker, DeMers, Hilson, Meck, Schaffer, et al., 2014; Treuer, & Reynolds, 2017). Two main approaches to the definition of the professional competence of psychologist and their standards of professional activities are the following: “one approach focuses on the roles and functions psychologists should be able to perform (output model), and the other focuses on the educational curricula that should be followed in order to become a psychologist (input model)” (Roe, 2002:192). Based on the European framework of professional education and practice of psychologists, the status of psychologist as a protected or non-protected generic profession in some countries are analyzed. According to the similarities between two countries, Greece and Serbia – relevant for educational systems and conceptualization of the psychologist education (approximately similar states population, historical experiences at the end of the nineteenth century and at the beginning of the twentieth century etc.), differences (Greece is the EU country, Serbia isn’t), and practice of the authors in two countries, the focus of the paper is comparison between Greek and Serbian psychologist status and education (professional regulation reflections on the psychologist university education).

1. Research organization

The paper considers two main topics: (a) regulation and status of the professional psychologist in two countries, and (b) psychologist’s education in two countries based on the regulatory framework and psychologist educational traditions framework.

The main goals are to describe and compare psychologist status and regulation and their actual university education in Greece and Serbia and to recognize strengths as opportunities to improve psychologist education.

The research based on content analysis. Data sources: regulatory and legislative documents (directives, regulations, rules, standards, professional codes); university programmes/curricula (web sites of the universities), reports of the national agency for university education (HQAAA and NEAQA).

2. Results 1: Review of the professional status and regulations of psychologist work in Greece and Serbia

European regulations of the psychologists' profession are the framework of the professional practice of psychologists in Greece and Serbia.

2.1. European framework of the professional status of psychologists

The process of professionalization has been radically different in different countries. In its original meaning, the essence of being a professional was to have made a public commitment to a high standard of performance, integrity, and public service.

Based on the European framework of professional education and practice of psychologists, the status of psychologist as a protected or non-protected generic profession in some countries are considered. According to the European Federation of Psychologists Association (EFPA, 2017), most of the 37 EFPA Member Associations² have legal recognition of the title psychologist, and many countries also have the legal protection of the title. This means that the legal authority has defined requirements that entitle the person to use the title psychologist. The legal entity with the powers to define and legislate over the title and the entitlement to work as a psychologist is called the *competent authority*. This is usually either a government Ministry or a professional organization with legal powers and responsibilities – regulated professions – when access and exercise are subject to the possession of a specific professional qualification (EP/EC, Directive 2005/36/EC).

Table 1. Recognition and protection of the profession psychologist (EFPA, 2017)

	Psychologists	A psychologist for clinical and health psych.	A psychologist for work and organization	School, child psychologist	Other fields: forensic, private, traffic
Recognized and protected in all professional fields	Croatia Finland France Greece Italy Norway Portugal Spain				
Recognized, regulated and protected in separate fields		Austria Czech Rep. Lithuania Turkey United Kingdom	Austria United Kingdom	Czech Rep. United Kingdom	Czech Rep United Kingdom

² EFPA members: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.

Only recognized in separate fields, not protected	Estonia	Estonia	Estonia
Only protected	Denmark Germany	Netherlands Slovenia	Netherlands
Not legally recognized and protected	Cyprus Hungary Latvia Netherlands Russia Slovenia United Kingdom		

Extremely different recognition and regulation of the psychologist work are the following (EFPA, 2017):

- In the United Kingdom, the single title “psychologist” is not legally regulated (recognized) and protected. But, nine professional titles are separately legally regulated and protected: clinical psychologist, counseling psychologist, educational psychologist, forensic psychologist, health psychologist, occupational psychologist, sport and exercise psychologist, practitioner psychologist and registered psychologist;
- In Cyprus, Hungary, and Latvia, neither the general term “psychologist”, nor separate terms for different fields are not legally recognized and protected titles.

“Psychologist” is totally recognized and protected title in all professional areas in the following countries: Croatia, Finland, France, Greece, Italy, Norway, Portugal, Serbia, and Spain.

Table 2. Competent authorities for regulation and protection profession: psychologist (EFPA, 2017)

Professional associations and organizations, chambers	Government and ministries	Other organizations
Croatia	Austria	Estonia
Cyprus	Czech Republic	Finland
Denmark	France	Greece
Portugal	Italy	Hungary
Serbia	Lithuania	United Kingdom
Spain	Netherlands	
	Norway	
	Slovenia	

2.2. Professional status of psychologists in Greece and Serbia

Psychologist in Greece:

- The professional practice of psychology in Greece is essentially beginning in the middle of the twentieth century (in the 60s), with a small number of professionals studying in Europe and America.

- The Association of Greek Psychologists was founded in 1963.
- Since 1979, the title “psychologist” has been protected by law in Greece. It can only be used by people who hold a relevant license to practice as a psychologist. A legislative framework came in 1979, Law No. 991/79 was the first law for psychologists in Europe (Kazolea-Tavoulari, 2002).
- The minimum requirement: completion of university training in psychology at a Greek public university, or a university recognized by the Greek authorities.
- The rights of psychologists and the right to use the title in public/state sector:
 - Who has completed university education (4 years, 240 ECTS) at four state universities in Greece (Aristotle University in Thessaloniki, Crete University, Athens University and National and Kapodistrian University in Athens); employment in state institutions in Greece is possible after completing 4 years of studies, 240 ECTS;
 - Private international universities in Greece have the foreign origins, and bachelor level at these institutions are corresponding with the criteria in the foreign states, not with Greek regulations, the recognition and validation of diploma by the DOATAP (Ministry of education) are necessary.
- Only Greek psychologists from state universities have opportunities to work in public/state institutions. Psychologists from private universities can't work in the public sector without diploma equivalence from the state commission.
- Graduates with at least the Bachelor degree (Ptychion) is granted by the Ministry of Welfare.
- The master level of approved psychology programmes entitle the candidates to the European Diploma of Psychology, which is awarded by the European Federation of Psychologists Associations by national accreditation committees under the supervision of the EFPA Accreditation Committee.

Psychologist in Serbia:

- The professional practice of psychology in Serbia is beginning in the middle of the twentieth century. Before applied psychologists (in medical institutions, economic sector, industry, etc.), psychologists worked as teachers of Psychology.
- The Section of the psychologist of the Republic of Serbia, as a part of the Association of Psychologists in Yugoslavia, was established in Belgrade in 1953, 7 June. At the first Annual Meeting of the Section of Serbian psychologist in 1954, the first task was to regulate the status of psychologists, to recognize psychologists as professionals for Applied Psychology (DPS, History of Psychology).
- Since 1996, in Serbia psychologist has been protected by the Law

of psychological work, and then by the Law of the conditions for psychological work (1996, 2005).

- Serbian Psychological Society is responsible for the ethical framework of the psychologists' work (Ethical code of the Serbian psychologists).
- The minimum requirement for some forms of psychologists' work: university education in psychology at Serbian universities, or universities recognized by the authorities (now: ENIC/NARIC of the Ministry of education) and universities.
- The rights of psychologists and the right to use the title in public/state sector:
 - Who has completed university education at the master level (bachelor plus master, 5 years, 300 ECTS) has the opportunity to work autonomously after one year of practice and after passing the exam for the professional licenses.
- All Serbian psychologists (from state and private universities) have opportunities to work in public institutions.
- Licensing of psychology graduates with at least a master degree is granted by three ministries (Ministry of education, Ministry of health, and Ministry of welfare and social work).
- The master level programmes are required for work in the school system, health system and all autonomous professional context.

The regulation of professional work of Greek psychologists and Serbian psychologists is reflected in the regulations of their university education.

3. Results 2: Review of the psychologist initial education in Greece and Serbia

The education of psychologists in Greece and Serbia is based on different professional regulations (prior part of the paper) and different traditions, regardless of the common European framework (European Commission/EACEA/Eurydice, 2018).

3.1. Beginning of the psychologists' education in Greece and Serbia – history

Since Psychology is one of the philosophical sciences (Georgas, 2006), for a long time has been taught in that way in Greece (Kazolea-Tavoulari, 2002; Georgas, 2006). This is a major cause that contributed significantly to the late institutionalization of the autonomous university education of psychologists in Greece. In Serbia, Psychology started as courses in school curricula in the middle of the nineteenth century.

Table 3. Establishing education in the field of Psychology

Education in the field of Psychology	Greece	Serbia
Including Psychology as school courses	1750. (closely linked to ancient Greek philosophy)	1835. Grammar school 1838. Lyceum in Kragujevac
Including Psychology as university courses	1837, The University of Othon (later National University)	1905. Great School, University of Belgrade
Dependent Psychology department in the context of Philosophy education	1964. University of Thessaloniki University of Ioannina 1993. National and Kapodistrian University in Athens	
Foundation of the first independent department of psychology	1984. University of Crete Rethymnon	1927. University of Belgrade
First student generation	1987/1988.	1928/1929.
The other independent department in the other universities	1993, Aristotle University 2013. National and Kapodistrian University in Athens	1971. University of Nis 1982 University of Novi Sad

3.2. European framework of psychologist education – the current situation

Educating psychologists in Europe has been challenged in recent years (Lunt, Peiró, Poortinga, & Roe, 2014; Peiro, & Lunt, 2002). The European Commission has supported efforts toward greater harmonization of psychology curricula at European universities (Roe, 2002, pp. 192). Results of the research in 16 European countries – members of the European Network for Psychology Learning and Teaching (EUROPLAT) are the following (Reddy, Dutke, Papageorgi & Bakker, 2014):

- In all countries, psychology is a popular subject, often with still increasing the number of psychology students. For example: in Turkey, the number of freshers accepted in psychology departments increased from 305 in 1986 to 4896 in 2013. Similarly, according to our research (authors), the number of freshers in Serbia accepted in psychology departments increased from 155 in 1984 to 628 in 2018.
- Most psychology students are women – approximately 80 percent in Croatia, Switzerland, Finland, and the UK, 75 percent in Germany, 90 per cent in Slovenia.
- EFPA's EuroPsy qualification concept (EFPA, 2017) requires a five years university education in psychology; 300 European Credit Transfer and Accumulation System academic psychology programme, plus one year of supervised practice as the minimum qualification for independent

professional practice in psychology. In some countries model of psychologist's education is three plus two years – bachelor plus master degree (Croatia, France, Germany), or four plus one (Czech Republic, Austria), or four plus two (Turkey and Cyprus), or integrated five years programme (Poland) or five-and-half programmes (Finland).

- A bachelor's degree does not normally qualify the graduate for independent professional practice.
- Structuring of study programmes in psychology has input from the European Federation of Psychologists' Associations (EFPA), the European qualification framework for psychologists, and the European Certificate in Psychology (EuroPsy) (Lunt, Peiró, Poortinga, & Roe, 2014).
- Attempts at harmonising structures of the curricula across Europe have improved student mobility.
- From the public view and the perspective of most psychology students, psychology is still identified with clinical psychology; but job opportunities in other sectors such as in work and organisational psychology and marketing, and the educational or judiciary systems, are sometimes underestimated. Research and teaching as a perspective for professional activities play only a marginal role in most countries considered here.
- Graduating at the master's level increases the chance of working in a psychological field. Graduating at the bachelor's level, which is the less frequent choice in Europe, often drives graduates into non-psychology domains. Here, their generic skills may help them to be more successful than bachelors from other disciplines.

3.3. Actual psychologist education in Greece and Serbia

Consideration of the psychologists who are educated and employed in different countries emphasized some differences. However, there are more similarities between the university education of psychologists in different countries. For example, today, psychology is a popular subject both in Greece, and Serbia. In both countries, the number of psychology students is increasing (table 4).

Table 4. Undergraduate programmes of psychology and number of students

	Greece	Serbia
Population	10.075.000	7.057.000
Undergraduate programmes of psychology (bachelor)	12	9
	1495	628
First-year students of psychology in 2018	(at the state and private universities, 625 at the state universities)	(at the state and private universities, 368 at the state universities)

Candidates 2018/2019 at the state universities	Missing data	890 candidates for 368 positions at the state universities
First-year students of psychology in 1984	0	155

What is the institutional framework of the psychologist's education in Greece? According to Georgas (2006), there are four state departments of psychology: the University of Crete, the National and Kapodistrian University of Athens, the Aristotle University of Thessaloniki, and Panteios University. There are more than 10 international universities with departments of psychology (table 5).

Three degrees are offered in psychology education. The bachelor degree (Ptychion Diploma) requires 4 years of study and this degree is generic in that there is no specialization (Bachelor's Degree in Psychology in Greece). The master degree (Metaptychiako Diploma) is in areas of practice and requires 2 or 3 years of study in addition to an internship at a mental health centre, school, or organization. These programmes also lead to the Doctor of Philosophy, but doctorates are also awarded in other areas of psychology through research.

Table 5. Psychologists' education at universities in Greece

University	Faculty	Bachelor	Years (ESPB)	Master	Years (ESPB)	PhD	Years (ESPB)
Aristotle University Thessaloniki	F. of Phil. School of Psychology, (1964) 1993		4 (240)			+	3-5 only research
University of Crete Rethymnon	Psychology Department (1984) 1988/9		4 (240)	17	2 (120)		
PANTEION Athens			4 (240)			+	Only research
EKPA Athens			4 (240)			+	Only research
625-800							
Metropolitan College	The School of Psychology	+	3	+	1		
Attic College		+	4	+			
New York College		+	4				
City Unity College		+		+			
The Deree School of Liberal Art Sciences		+		+			
The College of Humanities ICPS		+		+			

Aegean College	+	+
Center for Applied Psychotherapy and Counselling A, T, Cr		+

In Greece, entry to the university (four state departments of psychology) is based on national examinations and marks in secondary schools. An undergraduate degree is generic in that there is no specialization. Licensing of psychology graduates with at least a bachelor degree is granted by the Ministry of Welfare. Also, the master level programmes of approved psychology programmes entitle the candidates to the European Diploma of Psychology, which is awarded by the European Federation of Psychologists Associations by national accreditation committees under the supervision of the EFPA accreditation committee.

What is the institutional framework of psychologists' education in Serbia? There are six state departments of psychology in six state universities (the University of Belgrade, University of Novi Sad, University of Niš, University of Priština/Kosovska Mitrovica, State University of Novi Pazar, and University of Kragujevac), and three in private universities. The bachelor degree requires four years of study in all public universities and two private universities; only one university organizes three years bachelor program. A master degree requires one year (60 ECTS) in all public universities and two private. The third degree of psychologist's education is offered, too. However, doctoral programmes are organized only at three public universities.

Table 6. Psychologist's education at Serbian universities

University	Faculty	Bachelor	Years (ESPB)	Master	Years (ESPB)	Ph.D.	Years (ESPB)
Belgrade	F. of philosophy	88	4 (240)	88	1 (60)	15	3 (180)
Novi Sad	F. of philosophy	80	4 (240)	90	1 (60)	15	3 (180)
Niš	F. of philosophy	90	4 (240)	60	1 (60)	10	3 (180)
Priština/KM	F. of philosophy	50	4 (240)	25	1 (60)	--	--
DUNP	Department of philosophical sc	30	4 (240)	20	1 (60)	--	--
Kragujevac	PMF, FILUM, FPN, FMN	30	4 (240)	--	--	--	--
Singidunum	F. for media and communication	90	4 (240)	25	1 (60)	--	--
UNION	F. "dr Lazar Vrkatic"	120	3 (180)	50 +50	2 (120)	--	--
EDUKONS	F. for sport and tourism	50	4 (240)	25	1 (60)	--	--
		628		433		40	

In Serbia, entry to the university is based on marks in secondary schools and qualification exams at the university. Undergraduate level is generic and programmes are similar in most universities, except on the bachelor level at the University Singidunum (based on the curriculum on the Wien Institute - Freudian orientation), Union University (orientation to business psychology), EDUKONS (orientation to sport psychology), University of Kragujevac (orientation to the neurosciences and medical psychology). Master degree (graduate level) is a key level for autonomous professional work of psychologists.

Table 7. Graduating/master programmes and Ph.D. programmes of psychology

	Greece	Serbia
Number of master programmes	9	10
Structure of the curricula		
State & public universities	Very diverse, in some cases very interdisciplinary: Aristotle University: applied psychology, learning, and emotion, social psychology, psychosocial interventions; EKPA Athens: school psychology, clinical psychology; programmes with the other departments; PANTIO Athens: Social psychology of conflicts, consulting, identity and interpersonal relationship, applied cognitive and developmental psychology.	Curricula at state universities have more traditional orientation; curricula at private universities have a significant differentiation to specific practice areas: State university: research, educational psychology, clinical psychology, organizational psychology.
Private universities	Metropolitan College – School of Psychology (international): clinical and community psychology, the psychology of labor, applied positive psychology and psychology of coaching, counseling, and psychotherapy.	Private universities: psychotherapy, sport psychology, business psychology.
Number of Ph.D. programmes	4	3
	only at the state universities	only at the state universities

Comparison of the programmes in different levels of education of psychologists in Greece and Serbia suggested some differences: duration of curricula, the status of theoretical and practical courses in the curriculum, structure, and content of non-psychological courses, the required level of specialization, theoretical background and orientation, etc. While curricula at state universities in Serbia have more traditional orientation and curricula at private universities have a significant differentiation to specific practice areas, in Greece curricula at the bachelor level (especially in the state universities) are similar, while master curricula are very diverse, in some cases very interdisciplinary.

The most important strength of psychologist education in Greece is the diversity of the curricula in master (second) university level and correspondence with professional demands. It is an opportunity for psychologist education in

Serbia to use some models from Greek universities. The most important strength of psychologist education in Serbia is a research orientation. However, some differences between psychologist education in Greece and Serbia represented differences in psychologist education in most of the European countries. The diversity of psychologist education reflected some regulatory diversity and a different status of psychologists as a professional group.

4. Conclusion

Education in psychology as a profession is a liberal education (EFPA, 2017). Although the psychologists' education in most European countries is organized through three years bachelor programmes and two years master programmes (model 180+120 ECTS), in both compared countries – Greece and Serbia – the most (state/public) universities organize four years bachelor programmes and one-year master programmes (model 240+60 ECTS). The structure of university programmes (number of psychological courses, specific psychological outcomes, etc.) reflects different regulations and professional status of psychologist professions in Greece and Serbia. The diversity of approaches to psychologists' education enables further development of the profession and work in psychology and non-psychology fields.

Some important recommendations based on the prior analysis and comparison could be given. It is necessary to develop additional standards for accreditation of university curricula for psychologists' education in both countries: to make a connection between professional practice regulations and education and to support a diversity of the curricula.

References

- *** Bachelor's Degree in Psychology in Greece. Available on <https://www.bachelorsportal.com/study-options/268845135/psychology-greece.html>
- DPS. The History of Psychology (Stojanovic, M., "Fifty Years of Association of Psychologists of Serbia from 1953 to 2003."). Belgrade: Serbia Psychologists Society. Available on <http://dps.org.rs/history>
- EFPA (2017). *EuroPsy: European Certificate in Psychology – EFPA Regulations in EuroPsy and Appendices*. European Federation of Psychologists Associations, Retrieved from <http://www.europsy-efpa.eu/sites/default/files/page/EuroPsy%20Regulations%20July%202017%20Amsterdam.pdf>
- EP/EC. (2005). Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications. *Official Journal of the European Union*, Available on <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:255:0022:0142:en:PDF>
- *** Ethical code of the Serbian psychologists (Etički kodeks). Serbian Psychologists Society. Available on <http://dps.org.rs/ethical-code>

- Georgas, J. (2006) The education of psychologists in Greece, *International Journal of Psychology*, 41(1), 29-34, DOI: 10.1080/00207590444000438
- Hatcher, R. L., Fouad, N. A., Campbell, L. F., McCutcheon, S. R., Grus, C. L., and Leahy, K. L. (2013). Competency-based education for professional psychology: moving from concept to practice. *Training and Education in Professional Psychology*, 7(4), 225–234. doi:10.1037/a0033765
- HQAAA. Hellenic Quality Assurance and Accreditation Agency, <https://www.adip.gr/en>
- Καζολέα-Ταβουλάρη, Π.(Kazolea-Tavoulari, P.) (2002). Η Ιστορία της Ψυχολογίας στην Ελλάδα 1830-1987 (The History of Psychology in Greece 1830–1987). Ελληνικά Γράμματα (Greek Letters).
- *** Law of the conditions for psychological work. *Official Gazette of the Republic of Serbia, No 25/96 and 101/2005*. Available on https://www.paragraf.rs/propisi/zakon_o_uslovima_za_obavljanje_psiholoske_delatnosti.html
- Lunt, I., Peiró, J. M., Poortinga, Y., Roe, R. A. (2014). *EuroPsy: Standards and Quality in Education for Professional Psychologists*. Hogrefe Publishing.
- NEAQA – National Entity for Accreditation and Quality Assurance in Higher Education Serbia (NAT), <https://www.nat.rs/>
- Neal, M., & Morgan, I. (2000). The professionalization of everyone? A comparative study of the development of the professions in the United Kingdom and Germany, *European Sociological Review*, 16(1), 9–26, <https://doi.org/10.1093/esr/16.1.9>
- Peiro, J. M., & Lunt, I. (2002). The context for a European framework for psychologists' training. *European Psychologist*, 7(3), 169-179. <http://dx.doi.org/10.1027//1016-9040.7.3.169>
- Reddy, P., Dutke, S., Papageorgi, J., & Bakker, H. (2014). Educating Europe. *The Psychologist*, 27(12), 928–931. Available on <https://thepsychologist.bps.org.uk/volume-27/december-2014/educating-europe>
- Rodolfa, E., Baker, J., DeMers, S., Hilson, A., Meck, D., Schaffer, J., et al. (2014). Professional psychology competency initiatives: implications for training, regulation, and practice. *South African Journal of Psychology*, 44, 121–135. doi:10.1177/0081246314522371
- Roe, R. A. (2002). What Makes a Competent Psychologist? *European Psychologist*, 7(3), 192–202. DOI:10.1027//1016-9040.7.3.192.
- The British Psychological Society (2016). *Standards and Guidelines*, Available on <https://www.bps.org.uk/psychologists/standards-and-guidelines>
- Treuer, K. M. van, & Reynolds, N. (2017). A Competency Model of Psychology Practice: Articulating Complex Skills and Practice. *Frontiers in Education: Educational Psychology*, <https://doi.org/10.3389/educ.2017.00054>

Department/School of Psychology at universities in Greece

❖ Psychology at the public national universities in Greece

Department of Psychology, University of Crete, Rethymnon, <http://www.psychology.uoc.gr/en>

Department of Psychology, School of Philosophy, National and Kapodistrian University of Athens (EKPA), <http://www.psych.uoa.gr/>

Department of Psychology, School of Social Sciences, PANTEION University, Athens, <https://www.panteion.gr/index.php/en/schools-departments/school-of-social-science/department-of-psychology>

School of Psychology, Faculty of Philosophy, Aristotle University, Thessaloniki, <https://www.auth.gr/en/psy>

❖ Psychology at the private, international universities in Greece

Attic College (University of Plymouth):

Center for Applied Psychotherapy and Counselling, Athens, Thessaloniki, Crete

Department of Psychology, City Unity College (Cardiff Metropolitan University), <https://cityu.gr/en/department/department-of-psychology/>

Department of Psychology, Hellenic American College, <https://www.haec.gr/en/psychology>

Psychology, New York College (European & American Education), Athens, Thessaloniki, <https://www.nyc.gr/en/majors-nyc/psychology-studies>

School of Psychology, Mediterranean College, <https://www.medcollege.edu.gr/courses/bsc-hons-applied-psychology/>

School of Psychology, School of Liberal Art Sciences, The Deree – The American College of Greece, Athens, <https://www.acg.edu/undergraduate/undergraduate-programs/school-of-liberal-arts-sciences/liberal-arts-sciences-majors/psychology/>

The College of Humanistic Science, ICPS Institution for Counselling & Psychological Studies (British Universities Central Lancashire and Strathclyde), Athens, <http://www.icps.edu.gr/icps2012/css/default/templates/def/details.php?lng=2&cat=62>

The Psychology School of the Metropolitan College, Athens, Thessaloniki, Piraeus, Maroussi (University of East London), <http://www.mitropolitiko.edu.gr/en/bachelor-degrees-undergraduate-programs/faculty-human-sciences>

Faculty of humanities, Aegean College, Athens (cooperation with British universities), <https://aegeancollege.gr/en/scholi/human-sciences/>

Department/School of Psychology at universities in Serbia

Department of Psychology, Faculty of Philosophy, University of Belgrade, <http://www.f.bg.ac.rs/psihologija>

Department of Psychology, Faculty of Philosophy, University of Novi Sad, http://www.ff.uns.ac.rs/fakultet/odseci/fakultet_odseci_psihologija.html

Department of Psychology, Faculty of Philosophy, University of Niš, <https://www.filfak.ni.ac.rs/organizacija/departmani/psihologija>

Department of Psychology, Faculty of Philosophy, University of Priština/Kosovska Mitrovica, <http://fffa.pr.ac.rs/project/psihologija-oas/>

Department of Philosophical Sciences - Psychology, State University of Novi Pazar, <http://www.np.ac.rs/dep-filozofske-nauke#>

Department of Psychology, Faculty of Science, Faculty of Philology and Art, Faculty of Educational Sciences, Faculty of Medicine, University of Kragujevac, <https://www.pmf.kg.ac.rs/?id=74>

Department of Psychology, Faculty for media and communication, University Singidunum, <https://fmk.singidunum.ac.rs/departmani/psihologija/>

Department of Psychology, Faculty for business and law studies "Dr Lazar Vorkatić"
Novi Sad, University UNION, <http://www.flv.edu.rs/poslovna-psihologija/>

Department of Psychology, Faculty for sport and tourism, University Edukons, Novi Sad,
<https://www.tims.edu.rs/osnovne-studije/psihologija/>

Dragana Bjekić

Svetlana Obradović

Milica Stojković

Univerzitet u Kragujevcu, Fakultet tehničkih nauka u Čačku ;

Special vocational high school and lyceum for SEN students, Katerini, Greece

PROPISI PROFESIJE PSIHOLOGA I NJIHOVO OBRAZOVANJE U GRČKOJ I SRBIJI

Apstrakt

Regulisanje psihološke profesije je proces koji i dalje traje, iako je psihologija kao nauka na kraju devetnaestog veka diferencirana kao nezavisan naučni sistem. Na osnovu evropskog okvira propisa o psihološkoj profesiji, i poređenja profesionalnog statusa grčkih i srpskih psihologa, veza između profesionalnog statusa psihologa i njihovog univerzitetskog obrazovanja upoređena je u obe zemlje. Poređenje univerzitetskih programa pokazuje da se obrazovanje psihologa u Grčkoj i Srbiji zasniva na različitim tradicijama: u Srbiji je na Univerzitetu u Beogradu osnovano prvo odeljenje psihologije 1924; u Grčkoj je prvo odeljenje psihologije osnovano na Univerzitetu u Kritu u Retimnu 1984. Trenutno u Srbiji postoji više državnih/javnih priznatih programa na bachelor nivou (osam programa na državnim univerzitetima sa 368 studenata prve godine, tri programa na privatnim univerzitetima), nego u Grčkoj (četiri programa na državnim univerzitetima sa 625 studenata prve godine, osam programa na privatnim univerzitetima), dok su mogućnosti na master i doktorskim nivoima slične. Dok su nastavni programi na državnim univerzitetima u Srbiji više tradicionalno orijentisani a nastavni programi na privatnim univerzitetima se značajno razlikuju u zavisnosti od praktičnih područja, u Grčkoj su nastavni programi na bachelor nivou slični, dok su master programi vrlo raznoliki, u nekim slučajevima i vrlo interdisciplinarni. Konačno, struktura i ishodi univerzitetskih programa psihologije odražavaju različitu regulaciju i profesionalni status psihologa u Grčkoj i Srbiji. Raznolikost pristupa obrazovanju psihologa omogućava dalji razvoj profesije.

Ključne reči: obrazovanje psihologa, propisi psihološke profesije, grčki psiholozi, srpski psiholozi

TEACHERS' PERCEPTIONS AND EXPECTATIONS FROM A SCHOOL PSYCHOLOGIST¹

Abstract

School psychology is very important and widespread domain of psychology. It is one of the bases of school psychologists' professional engagement. School psychologists' roles are differentiated in a context of school environment development. Changing school psychologists' roles is under the influence of expectations of teachers, school principals, students, parents, representatives of school systems, public etc. Teachers' expectations are the expression of their needs in the professional interaction with school psychologists. The goal of this study was to examine teachers' expectations from school psychologists and teachers' overall perceptions of school psychologists' professional engagement. The research consists of two parts. Based on descriptions of the structure of school psychologists' professional activities, first the review of the regulation of school psychologist professional engagement in Serbia and neighboring countries is presented. Central part of the paper is a review of studies on teachers' expectations from school psychologists. The sample consists of the papers on this topic published in eight representative journals in this field: *The School Psychologist*, *School Psychology International*, *Contemporary School Psychology*, *Journal of Applied School Psychology*, *School Psychology Quarterly*, *School Psychology Review*, *Canadian Journal of School Psychology*, *Journal of Psychologists and Counsellors in Schools*. Meta-analytic approach is used in analyzing empirical and theoretical research papers on teachers' expectations from school psychologists. The results are the following: theoretical background of majority of research papers is socio-constructivism; the activities of individual counseling of children and consultation with teachers and parents are seen as the main roles of school psychologists. Conclusion: Comparing regulations of school psychologists' engagement in the surrounding countries and main teachers' expectations from them, a discrepancy between regulations and teachers' expectations from school psychologists is noticed. It is necessary to harmonize the regulations of school psychologists' roles and expectations of their school partners.

Keywords: school psychologist, teachers' expectations, professional roles school psychologist, teachers' expectations, professional roles

¹ The paper is the part of the project OI 179026 "Teaching and learning – status, problems, and perspectives", which is supported by the Ministry of education, science and technological development of the Republic of Serbia.

1. Introduction

School psychology is very important and widespread domain of psychology. School psychologists are very important and responsible participants of school processes. Exploring professional practices of school psychologists in Portugal, Mendes, Jasser, Abreu-Lima and Almeida (2017) confirmed that the school psychologists are relatively homogenous population. Nowadays, school psychology is considered as key of the quality of education, and “contributes for the school, actually being a space for humanization and knowledge appropriation” (Santos Peretta, da Silva, de Souza, de Oliveri, Barbosa, de Sousa, & Rezende, 2014).

According to the American Psychological Association (APA, Division of School Psychology), school psychology is “a general practice and health service provider specialty of professional psychology that is concerned with the science and practice of psychology with children, youth, families; learners of all ages; and the schooling process” (APA, Division of School Psychology). School psychology is based on numerous fundamental psychological disciplines. Antunes (2008) considered relationship between educational psychology and school psychology: “educational psychology is one of the scientific foundations of education and pedagogical practice and school psychology is a modality of professional activity in the schooling process”. School psychology is one of the bases of school psychologist professional engagement.

Work of the school psychologists was in the focus of interests of international organizations in the middle of the twentieth century. At the “XI International Conference on Public Education” held in 1948 in Geneva, in the organization of UNESCO Paris and International Bureau of Education Geneva (UNESCO and the I.B.E., 1948), the school psychologists were central topic of the conference. Relevant ministries from 42 countries were involved at the conference (Argentina, Australia, Austria, Belgium, Bolivia, Bulgaria, Canada, Chile, China, Colombia, Cuba, Czechoslovakia, Denmark, Dominican Republic, Ecuador, Ethiopia, Finland, France, Greece, Guatemala, Holland, Hungary, Italy, Luxemburg, Mexico, Nicaragua, New Zealand, Norway, Peru, Philippines, Poland, Portugal, Romania, Salvador, Sweden, Switzerland, Syria, Turkey, Union of South Africa, United Kingdom, United States of America, Uruguay). School psychology began to emerge as an identifiable profession in the 1950s. In the middle of 20th century, the central activities of school psychologists were:

- diagnosis and treatment of various difficulties in children adaptation;
- educational guidance involving the testing and adaptation of educational methods;
- pre-vocational guidance.

According to the investigation of school psychologist professional activities based on the International School Psychology Survey, in the first decade of twenty first century, school psychologist as profession was present in 83 countries of 192 United Nations’ member states (Jimerson, Oakland, & Farrell, 2007, according to Matteucci & Farrel, 2018).

The last decades of the twentieth century and the beginning of the twenty-first century is the period of growth and expansion of the profession of school psychologist (Farrell, 2010) and the school psychologist's roles and functions are "described and understood much better than they were in the early part of the 20th century" (Fagan & Wise, 2007:105). In the beginning of the 21st century, school psychology has been described as a specialty that (Jimerson, Oakland & Farrell, 2007, according to Matteucci & Farrel, 2018):

- provides individual assessment of children displaying cognitive, emotional, social or behavioural difficulties;
- develops and implements primary and secondary intervention programs;
- consults with teachers, parents and other relevant professionals;
- engages in program development and evaluation;
- conducts research;
- helps to prepare and supervise others.

School psychologists, and school psychology as applied psychological discipline, are the topic of contemporary researchers and numerous journals. The status of school psychology and school psychologist in the scientific and professional periodical literature and journals reflects relationship and attitudes of some national scientific communities, and, more of them, national educational policies.

What is a position and status of school psychologists in countries with well-organized school psychologists' associations and professional recognitions (Australia, France, United Kingdom, United States, according to Matteucci, & Farrell, 2018) and in the country with most successful school system (Finland)?

At the beginning of the twenty first century, school psychology in Australia "has been described as a specialty that collectively provides individual assessment of children displaying cognitive, emotional, social, or behavioural difficulties; develops and implements primary and secondary intervention programs; consults with teachers, parents, and other relevant professionals; engages in program development and evaluation; conducts research; and helps prepare and supervise others"(Jimerson, Oakland, & Farrell, 2007, according to Faulkner & Jimerson, 2017). The school psychologists' practice is based on knowledge and implementation of legal, ethical, and professional standards which regulate interactions between school psychologists and students, teachers, parents and school administrations, and support students' welfare and school climate (Australian Psychological Society, 2016; Thielking, Gerardi, Bole Williams, Terjesen, & Flatau. 2017).

At the same time, the success of Finnish educational system in the OECD's PISA surveys put Finland in the center of numerous researches. Some of researchers expect developed system of school psychology services. However "Finnish school psychology is suffering from the same types of problems as in many other countries: No large-scale shift from reactive work to active promotion

and prevention has taken place, and the number of school psychologists is insufficient. They devote, on average, 59% of their time to direct work with clients... More than half of the school psychologists are interested in increasing the time devoted to indirect work, but the ideal average proportion of work with clients, as seen by school psychologists themselves, is still as high as 50% (Ahtola, & Niemi, 2014:137, 140). Today, focus of the school psychologists' practice in Finland is pupil welfare activities – activities that promote and maintain good learning, good psychological, physical and social health, and enhance the prerequisites of these. Pupil welfare is the concern of all persons working in the school community, but school psychologists, school nurses, school doctors, and school social workers are directly and solely engaged in promoting pupil welfare. Strengthening the professional expertise of teachers should not result in diminished involvement of other experts, because successful assessment and intervention usually demand multiprofessional efforts" (Ahtola & Niemi, 2014: 140)."

School psychologists are an important piece of the school system puzzle. Their roles are differentiated in a context of school environment development.

2. School psychologists and their partners in schools

Changing school psychologists' roles is under the influence of expectations of teachers, school principals, students, parents, representatives of school systems, public etc. Teachers' expectations are the expression of their needs in the professional interaction with school psychologists.

One of description of professional activities and professional duties of a school psychologist was given in 1938 from the student's position: "The following functions of a psychologist are suggested: group and individual testing; remedial teaching and the instruction of teachers in this field; diagnosis and treatment of personality problems; participation in record keeping, extra-curricular activities, reconstruction of the curriculum, formation of policies, home-school relationships, and responsibility for the in-service training of teachers in guidance. A factor affecting the scope of functions will be the degree of emphasis placed upon treatment as opposed to prevention." (Baker, 1938:180).

In the middle of 20th century, during the period of simultaneous development of diverse psychological disciplines, school psychologists were working in schools and specialized school services, and the focus of their work was on the following groups of activities: "(a) Detection of backward children, which is often the beginning of diagnosis and treatment of various difficulties in adaptation; (b) Educational guidance involving the testing and adaptation of educational methods; (c) Pre-vocational guidance" (UNESCO & THE I.B.E, 1948: 9-14).

During the 20th century, changing of school psychologists' traditional roles was slow, and "changing their perceptions of themselves as testers and therapists was very difficult" (Ahtola & Niemi, 2014). Psychological services in

schools, personalized as a professional position of school psychologist, were institutionalized through 20th century.

2.1. Who are the school psychologists today?

Today, school psychologists are the most numerous subgroup of psychologists. According to the ISPA (2018) "the term School Psychologist is referring to professionals trained in both Psychology and Education and recognized as specialized in providing services to children and adolescents in the context of school, family and other settings that impact their growth and development."

In the European Commission system of regulated profession - Directive 2005/36/EC (EU, 2005), profession of school psychologist is the autonomous profession in the nomenclature of professions in some countries, but it is the subfield of the wider psychological profession in the other countries. For example, in the Republic of Slovakia, school psychologist (in Slovakian: Školský psychológ) is the autonomous profession in the professional nomenclature. In the prior mentioned Directive, the activities of school psychologist are described in the following way: Provides professional activities under the indicative of psychological diagnosis, individual, group or collective psychological counselling, psychotherapy, prevention and intervention for children and pupils with special regard to the process of education at schools and school facilities. In some countries, according to the same Directive, prior description is the part of the wider professions: practitioner psychologist in UK; professional associate in the school institutions or non-teaching expert staff in the school in Croatia; (school) counsellor in some countries (respecting some essential differences between school psychologist and school counsellor, and some insufficient differentiation of these two professions, too).

Nowadays, working tasks and activities of school psychologist are differentiated in the numerous international and national professional associations' documents. The following description of the school psychologists' working activities (analyzed from the school position) are based on the International School Psychology Association's description (ISPA, 2018), and some considerations of National Association of School Psychologists (NASP, 2018). School psychologists contribute to the school successfulness and efficiency in the following ways:

- (a) improve academic achievement,
- (b) promote positive behaviour and mental health,
- (c) support diverse learners,
- (d) create safe, positive school climates,
- (e) strengthen family-school partnerships,
- (f) improve school-wide assessment and accountability monitor individual student progress in academics and behaviour.

Table 1. Activities of school psychologists (ISPA, 2018)

Improve academic achievement	Create safe, positive school climates
<ul style="list-style-type: none"> • Promote student motivation and engagement • Conduct psychological and academic assessments • Individualize instruction and interventions • Manage student and classroom behavior • Monitor student progress • Collect and interpret student and classroom data • Reduce inappropriate referrals to special education. 	<ul style="list-style-type: none"> • Prevent bullying and other forms of violence • Support social-emotional learning • Assess school climate and improve school connectedness • Implement and promote positive discipline and restorative justice • Implement school-wide positive behavioral supports • Identify at risk students and school vulnerabilities • Provide crisis prevention and intervention services
Promote positive behaviour and mental health	Strengthen family-school partnerships
<ul style="list-style-type: none"> • Improve students' communication and social skills. • Assess student emotional and behavioural needs. • Provide individual and group counselling. • Promote problem solving, anger management and conflict resolution. • Reinforce positive coping skills and resilience. • Promote positive peer relationships and social problem solving. • Make referrals to and help coordinate community services provided in schools. 	<ul style="list-style-type: none"> • Help families understand their child's learning and mental health needs • Assist in navigating special education processes • Connect families with community service providers when necessary • Help effectively engage families with teachers and other school staff • Enhance staff understanding and responsiveness to diverse cultures and backgrounds • Help students transition between school and community learning environments, such as residential treatment or juvenile justice programs
Support diverse learners	Improve school-wide assessment and accountability
<ul style="list-style-type: none"> • Assess diverse learning needs • Provide culturally responsive services to students and families from diverse backgrounds • Plan appropriate Individualized Education Programs for students with disabilities • Modify and adapt curricula and instruction • Adjust classroom facilities and routines to improve student engagement and learning • Monitor and effectively communicate with parents about student progress 	<ul style="list-style-type: none"> • Monitor individual student progress in academics and behaviour • Generate and interpret useful student and school outcome data • Collect and analyze data on risk and protective factors related to student outcomes • Plan services at the district, building, classroom, and individual levels

2.2. School psychologists' partners in the school: teachers

Social context of the school psychologists' work is multilayered. School psychologists' social partners are: students, teachers, parents, families, school personals (school administrators, principals), government educational institutions, nongovernment organizations, local authority and municipality, and the other professionals involved in the process of creation safe, healthy, and supportive learning environments (ISPA, 2018). School psychologists are the initial mental health service providers for the most of students; at the same time, teachers are the main group of school professionals with whom school psychologists have most contact, and they are primary consumers of the school psychological services; the interaction between school psychologists and teachers is crucial for the support for the students (Bisinger, 2009; Farrell, Jimerson, Kalamouka, & Benoit, 2005). In the research of teachers' perceptions of school psychologists, some results suggested that there are different perceptions of the school psychologists between more experienced teachers, and teachers in different classroom settings: (a) teachers in inclusive classrooms rated school psychologists higher in the area of helpfulness than teachers with general education students in their classrooms: (b) more experienced teachers reported higher ratings of school psychologists' helpfulness and performance (Bisinger, 2009).

2.3. Regulations of the school psychologists' work in Serbia

A school psychologist as profession is based on seven attributes of professionalism: a profession's activities, self-regulation, professional preparation programmes, socialization, status, rewards and recognition, and professional practice within organizations (Oakland, 1986).

Some important international regulations of the school psychologists' work are: (a) Code of Ethics of the International School Psychology Association (ISPA, 2011); (b) Universal Declaration of Ethical Principles for Psychologists, International Union of Psychological Science (IUPsyS, 2008).

School psychologists are probably the most numerous professional subgroups of psychologists in Serbia currently. The main official regulations of school psychologists' professional engagement at national level are:

- Law of conditions for psychological professional activities (Official Gazette of RS, 2005)
- Code of Ethics of Serbian psychologists, Serbian Psychological Society (DPS, 2000),
- Statute of the Serbian Psychological Society (DPS, 2016),
- Rulebook on the program of all forms of expert associates' work (Ministry of Education of the Republic of Serbia, 2012)
- Rulebook on the program of expert associates' work in elementary school (Official Gazette of RS, 1994)
- Rulebook on the program of expert associates' work in high school (Official Gazette of RS, 1993)

- Catalogue of jobs / working positions in the public services and public organizations: professional associate – psychologist (The Ministry of Public Administration and Local Self-Government, 2018).

Based on the review of the regulation of school psychologist professional engagement in Serbia, it is possible to gain insight in the structure of school psychologists' professional activities. Main activities of school psychologists and the job description according to official national regulation are summarized in Table 2.

According to official national regulation, school psychologist's professional engagement entails the following main groups of professional activities:

- Psychological assessment and application of standardized psychological instruments;
- Psychological prevention and education;
- Psychological counselling;
- Psychological research and evaluation.

Table 2. Main activities of school psychologists & job description according to official national regulation

Activities	Hours per week	
	Elementary school	High. school
Planning, programming, organization and monitoring of educational processes	4	4
Improving educational processes in instructive pedagogical and psychological work with teachers / implementing teaching plan and program in cooperation with teachers	6	8
Working with students (individual and group work)	10	12
Cooperation and counselling with parents of pupils	3	3
Researching educational practice (analytical and research activities)	3	3
Participating in professional actives and associations	2	
Cooperation with professional institutions, communities and professional development	1	10
Administration	10	
Preparation		
	40	40

According to Serbian school regulations, the school psychologist is expected to be engaged in improving all aspects of work in a school, as well as to be the link between all participants in that process (Maksić & Đurišić-Bojanović, 2017). The responsibilities of a school psychologist span widely across students, teachers, parents and administrators. In many cases when the school psychologist is involved, the interaction between him/her and a student's teacher is crucial (Bisinger, 2009).

Teachers are probably the main group of professionals with whom school psychologists have most contact (Farrell et al., 2005). Teachers' expectations are the expression of their needs in the professional interaction with school psychologists.

3. Research methodology of the review of journal articles on teachers’ expectations from school psychologists

The goal of this study was to examine teachers’ expectations from school psychologists and teachers’ overall perceptions of school psychologists’ professional engagement presented in the relevant journals in the field of school psychology. Meta-analytic approach is used in analyzing empirical and theoretical research papers on teachers’ expectations from school psychologists.

The sampling procedure and data collection consisted of several consecutive steps. Firstly the representative journals in this field (school psychology) were selected; the selection criterion was that journal had to be referenced in one or more of the following reference lists: SCOPUS, JCR (Journal Citation Report of Clarivate Analytics), SJR (SCImago Journals and Country Ranking). The final journals sample “pool” consisted of eight representative journals in this field: *School Psychology International*, *Contemporary School Psychology*, *Journal of Applied School Psychology*, *Journal of School Psychology*, *School Psychology Quarterly*, *School Psychology Review*, *Canadian Journal of School Psychology*, *Journal of Psychologists and Counsellors in Schools*. Webpage addresses of all selected journals are available in Addition 1.

Keywords search for studies on teachers’ expectations from school psychologists was the next step in sampling. A wider search for articles about school psychologist was conducted first: a total of 441 articles on school psychologist were found though keywords search in all eight journals. From that sample a second keywords search were done, with *teachers’ expectations* and *teachers’ attitudes* being the keywords, resulting in the final sample of 33 research papers specifically investigating teachers’ expectations of school psychologist (Table 3).

Table 3. Research papers on teachers’ expectations of school psychologist in journals (Add 2)

Journal	Publisher Supported institutions	First year of publishing / No of volumes Issues per year	Total number of articles	No of articles of school psych.	No of articles of teachers’ expectances of school psych.
1. <i>Canadian Journal of School Psychology</i>	SAGE Publications Canadian Association of School Psychologists JCR/Clarivate Analytics SJR/SCImago	First: 1985 Vol: 33 Issues: 76 Issues per year: 4 from 2009	456	82	0 Zero
2. <i>Contemporary School Psychology</i>	Springer The Official Journal of the California Association of School Psychologists ERIC	First: 1996. Vol: 22 Issues: 36 Issues per year: 4 from 2014	368	10	0 Zero
3. <i>International Journal of School & Educational Psychology</i>	Taylor and Francis Official journal of the International School Psychology Association SCOPUS, ERIC	First: 2013. Vol: 6 Issues: 23 Issues per year: 4	149	14	2 Onlytwo

International Thematic Proceedia

4. <i>Journal of Applied School Psychology</i> (from 2002) Previous title: <i>Special Services in the School</i>	<u>Taylor and Francis</u> The Official Journal of the American Academy of School Psychology SCOPUS, ERIC, SJR	First: 1984. Vol: 34 Issues: Issues per year: 4	546	37	1 Only one
5. <i>Journal of Psychologists and Counsellors in School s</i> (from 2015) Previous title: <i>Australian Journal of Guidance and Counselling</i> 91-2014	<u>Cambridge University Press</u> APACS / Australian Psychologists and Counsellors in Schools JCR/Clarivate Analytics SJR	First: 1991 Vol: 28 Issues: 45 Issues per year: 2	420	39	2 Only two
6. <i>Journal of School Psychology</i>	Elsevier Society for the Study of School Psychology SCOPUS ERIC SJR	First: 1963 Vol: 70 (more per year) Issues: 70/256 Issues per year: 1-4	(256 No of journals) 178 2213		21
7. <i>School Psychology International</i>	<u>SAGE publications</u> JCR /SSCI Clarivate Analytics ERIC SJR	First: 1979 Vol: 39 Issues: 178 Issues per year: 6 from 2006	892	68	7
8. <i>School Psychology Quarterly</i>	<u>American Psychological Association</u> JCR/SSCI Clarivate Analytics SCOPUS SJR ERIC	First: 1986 Vol: 33 Issues: 148+2 Issues per year: 4	1043	13	0 Zero
			6087	441 7,25	33 0,5%

For each paper data was collected following three main units of analysis: (1) theoretical background, (2) research method/technics/instrument, and (3) the main results and conclusions.

4. Results of review and discussion

Frequency analysis showed that in eight selected representative journals only 33 research papers had been published on teachers' expectations from school psychologists in the last 50 years, which is only 0,5% of all published papers in those journals (a total number of articles in selected journals in 1965–2018 period is 6087). As it is shown in the Figure 1, majority of these papers had been published in the last two decades of 20th century and in the first decade of 21st century (18

papers, i.e. 55%). It is also evident that in period from 1965 to 1980 there had been significant interest in this topic (12 papers published in that period, which is 37% from selected sample). However, our data suggest that in the current decade of 21st century there is a significant decrease of research investigating relationship between school psychologists and teachers – only three articles from 2018, which is only 9% of total selected sample.

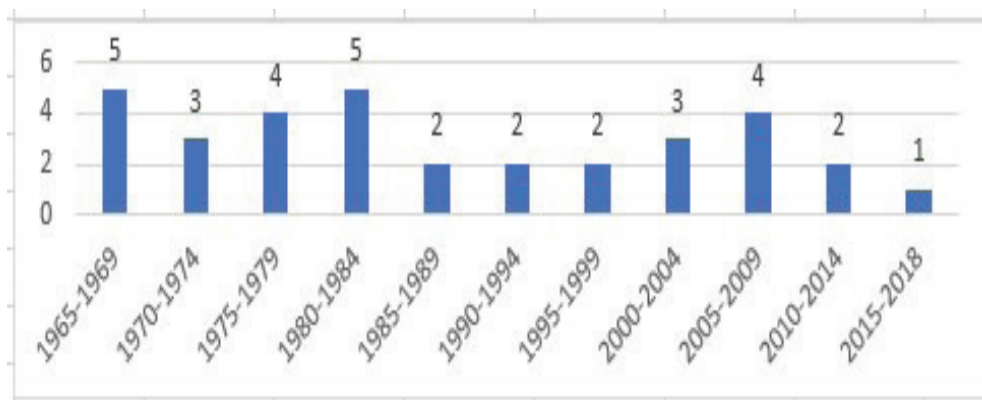


Fig. 1. Number of articles: teachers' expectancies from school psychologists

Theoretical background is not recognizable in the most articles (77%), there are no direct theoretical models or assumptions considered or research based in certain theoretical framework. The main identifiable theoretical frameworks are socio-constructivism (13% of papers) and social learning theories (10% of papers). These findings in general suggest that there is a need for more elaborate and explicit consideration of theoretical models in explaining and researching relations between school psychologists and teachers.

Results concerning the **research methods, technics and instruments** most frequently used in analyzed studies could be summarized in following order:

- the assessment/rating scales are the most frequently used single data collection technique (8 papers)
- questionnaire and mix-method (questionnaires plus rating scales) (13 papers)
- semi-structured and structured interviews, interview with focus group (5 articles)
- survey (4 articles)
- content analysis / role analysis (2 articles)
- experiment, intervention programmes, pilot study (3 articles)

Finally, the analysis of main results showed some significant clusters of school psychologists' roles perceived from teachers' perspective. The activities of **individual counselling of children** and **consultation with teachers and parents** are seen as the main roles of school psychologists. In the first period of researching

data indicated support for traditional child study services, in-service work with teachers and counselling of parents and children. Teachers overestimated the importance of psychotherapy as one of the school psychologist's functions. In the past period of researching: School psychologists' roles mainly focused on services for students (teaching mental health classes, counselling, consultation), with a strong emphasis on **prevention and early intervention**. Data suggest that teachers prefer consultative model of school psychologists (Magi, & Kikas, 2009).

Important topics considered in analyzed articles (Add 2):

- Teacher's preference from school psychologists;
- Teacher's perceptions of school psychologist's professional competence;
- Differences of different professionals' perceptions of school psychologists;
- Comparison of the school psychologists' self-perceptions and teacher's perceptions of school psychologists;
- Effect of role of the cooperation, collaboration, contact between school psychologists and the other school staff on the expectance from school psychologists;
- Actual and ideal roles of school psychologists;
- Teachers' confidence in school psychologists' work and their expectations from school psychologists;
- Social power of school psychologists as the context of teachers' perceptions of school psychologists;
- School staff gave 'very important' ratings to six services: assessment, special education input, consultation, counselling, crisis intervention and behaviour management; school-community liaison and parent education roles were rated as 'fairly important' and staff development was considered to be 'somewhat important.'

5. Conclusion and educational implications

Comparing regulations of school psychologists' engagement and main teachers' expectations from them, a discrepancy between descriptions and regulations of school psychologist activities and teachers' expectations from school psychologists is noticed. Teachers in the analyzed research, regardless of whether they are realized decades ago, or in the last few, still perceive the school psychologist as an expert who should work directly with students, someone who should "solve individual problems" of pupils and sometimes interpersonal problems in group of pupils. On the other hand, current educational practice requires that a school psychologist is also engaged in activities of prevention that are meant to contribute to overall welfare and the positive atmosphere of the development of the individual within the community and to contribute to welfare of community itself.

To conclude, it is necessary to harmonize the regulations of school psychologists' roles and expectations of their school partners and to improve teachers' awareness about professional activities of school psychologists and their prevention roles. The main emphasis should be on the less direct individual work, a more collaborative and cooperative activities of prevention, support, and positive pedagogy. In addition, important issue that is not considered enough (or at all) is how much are school psychologists in Serbia ready to meet both traditional expectations of teachers and the challenge of preventive psychological approach in the school environment. Apart from discussing the Serbian context, more broadly speaking numerous researches about teachers' perception of professional activities of school psychologists has decreased significantly over the last decade. This could inspire the need for more research.

References

- Ahtola, A., & Niemi, P. (2014). Does it work in Finland: School psychological services within a successful system of basic education. *School Psychology International*, 35(2), 136 – 151. DOI: 10.1177/0143034312469161 2014 35: 136
- Antunes, M. A. M. (2008). Psicologia escolar e educacional: história, compromissos e perspectivas. *Psicologia Escolar e Educacional*, 12 (2), 469–475. <http://dx.doi.org/10.1590/S1413-85572008000200020>
- Australian Psychological Society (APS). (2016). *The framework for effective delivery of school psychology services: a practice guide for psychologists and school leaders*. Retrieved from <http://www.psychology.org.au/Assets/Files/School-psych-services.pdf>
- Baker, M. (1938). The duties of a school psychologist. *Journal of Consulting Psychology*, 2(6), 180-183. DOI: 10.1037/h0063459
- Bisinger, N. (2009). *An investigation of teachers' perceptions of school psychologists*, Thesis, Rowan University, available on <https://rdw.rowan.edu/cgi/viewcontent.cgi?article=1594&context=etd>
- The Ministry of Public Administration and Local Self-Government (2018). Catalogue of working positions in the public services and public organizations / Job Directory
- DPS (2000). Code of Ethics of Serbian Psychologists (Etički kodeks psihologa Srbije), Društvo psihologa Srbije. Available on <http://www.dps.org.rs/eticki-kodeks>
- DPS (2016). Statute of the Serbian Psychological Society (DPS, 2016), Društvo psihologa Srbije. Available on <http://dps.org.rs/o-dps/statut-dps>
- EU (2005). Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the Recognition of Professional Qualifications. *Official Journal of the European Union*, L 255, 30.9.2005 Available on <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:255:0022:0142:en:PDF>
- Fagan, T. K., & Wise, P. S. (2007). *School Psychology Past, Present and Future*. Bethesda, USA: National Association of School Psychologists.
- Farrell, P. (2010). School psychology: Learning lessons from history and moving forward. *School Psychology International*, 31(6), 581-598. DOI: 10.1177/0143034310386533

- Farrell, P., Jimerson, S. R., Kalambouka, A., & Benoit, J. (2005). Teachers' Perceptions of School Psychologists in Different Countries. *School Psychology International*, 26 (5), 525-544. DOI: 10.1177/0143034305060787
- Faulkner, M., & Jimerson, S. R. (2017). National and International Perspectives on School Psychology: Research, Practice and Policy. In. M. Thielking, & M. Terjesen (Eds). *Handbook of Australian School Psychology* (pp. 1-19). Cham Switzerland: Springer. DOI: 10.1007/978-3-319-45166-4_1
- ISPA (2011). Code of Ethics of the International School Psychology Association. Retrieved 2018, September, from http://www.ispaweb.org/wp-content/uploads/2013/01/The_ISPA_Code_of_Ethics_2011.pdf
- IUPsyS (2008). Universal Declaration of Ethical Principles for Psychologist. Available on <http://www.iupsys.net/about/governance/universal-declaration-of-ethical-principles-for-psychologists.html>
- Official Gazette of RS (2005). Law of conditions for psychological professional activities. Official Gazette of RS, no. 25/96, 101/2005. Available at https://www.paragraf.rs/propisi/zakon_o_uslovima_za_obavljanje_psiholoske_delatnosti.html
- Magi, K., & Kikas, E. (2009). School psychologists' role in school: Expectations of school principal on the work of school psychologists. *School Psychology International*, 30, 331-346. doi:10.1177/0143034309106943
- Maksić, S., & Đurišić-Bojanović, M. M. (2017). Doprinos školskog psihologa primeni principa pozitivne psihologije u razvoju škole, *Nastava i vaspitanje*, LXVI(2), 337-350-DOI:10.5937/nasvas1702337M
- Matteucci, M. C., & Farrell, P. T. (2018). School psychologists in the Italian education system: A mixed-methods study of a district in northern Italy. *International Journal of School & Educational Psychology*, <https://doi.org/10.1080/21683603.2018.1443858>
- Mendes, S., A., Jasser, J., Abreu-lima, I. M. R., & Almeida, L. S. (2017). All different or all the same? Exploring the diversity of professional practices in Portuguese school psychology. *European Journal of Psychology of Education*, 32(2), 251-269.
- NASP (2018). Who Are School Psychologists? Bethesda, USA: national Association of School Psychologists. Available on <https://www.nasponline.org/about-school-psychology/who-are-school-psychologists>
- Oakland, T. D. (1986). Professionalism within school psychology. *Professional School Psychology*, 1(1), 9-27. <http://dx.doi.org/10.1037/h0090496>
- Ministry of Education of the Republic of Serbia (2012). Rulebook on the program of all forms of expert associates' work. Available at <http://www.mpn.gov.rs/>
- Official Gazette of Republic of Serbia – Education Gazette (1994). Rulebook on the program of expert associates' work in elementary school. *Official Gazette of Republic of Serbia*, no 1/94. Available at <http://www.dps.org.rs/pocetna/507>
- Official Gazette of Republic of Serbia – Education Gazette (1993). Rulebook on the program of expert associates' work in high school. *Official Gazette of Republic of Serbia*, no 1/93. Available at <http://www.dps.org.rs/pocetna/508>
- Santos Peretta, A. A. C., da Silva, S. M. C., de Souza, C. S., de Oliveri, J. O., Barbosa, F. M., de Sousa, L. R., & Rezende, P. C. M. (2014). O caminho se fazaoaminhar:

atuações em Psicologia Escolar. *Revista Quadrimestral da Associação Brasileira de Psicologia Escolar e Educacional*, 18(2), 293-301. <http://dx.doi.org/10.1590/2175-3539/2014/0182747>

Thielking, M., Gerardi, N., & Bole Williams, B., Terjesen, M. D., & Flatau, P. (2017). Resources for Ethical School Psychological Practice in Australia, in *Handbook of Australian School Psychology*, DOI: 10.1007/978-3-319-45166-4_6

UNESCO & the I.B.E. (1948). *School Psychologists, Publication No 105*, XI International Conference on Public Education Convened by UNESCO and the I.B.E, Geneva, 1948. Available on <http://unesdoc.unesco.org/images/0012/001258/125815Eo.pdf>

Add 1. Selected journals (8)

1. *Canadian Journal of School Psychology* <http://journals.sagepub.com/home/cjs>
2. *Contemporary School Psychology* <https://link.springer.com/journal/40688>
3. *International Journal of School & Educational Psychology* <https://www.tandfonline.com/loi/usep20>
4. *Journal of Applied School Psychology* <https://www.tandfonline.com/loi/wapp20>
5. *Journal of Psychologists and Counsellors in Schools* <https://www.cambridge.org/core/journals/journal-of-psychologists-and-counsellors-in-schools>
6. *Journal of School Psychology* <https://www.journals.elsevier.com/journal-of-school-psychology>
7. *School Psychology International* <http://journals.sagepub.com/home/spi>
8. *School Psychology Quarterly*

Add 2. Analyzed papers in the review (table 3) not previously mentioned in the text

- Abel, R. R., & Burke, J. P. (1985). Perceptions of school psychology services from a staff perspective. *Journal of School Psychology*, 23(2), 121-131. [https://doi.org/10.1016/0022-4405\(85\)90003-2](https://doi.org/10.1016/0022-4405(85)90003-2)
- Ahtola, A., & Kiiski-Maki, H. (2014). What Do Schools Need? School Professionals' Perceptions of School Psychology. *International Journal of School & Educational Psychology*, 2(2), 95-105. <https://doi.org/10.1080/21683603.2013.876952>
- Ashman, A. (1994). Identifying and removing blockages to successful collaborations between counsellors, teachers and parents. *Journal of Psychologists and Counsellors in Schools*, 4, 1-17. doi: 10.1017/S1037291100001874
- Bardon, J. I., & Bennett, V. D. C. (1966). The perception of the role of the school psychologist as related to teaching experience and educational background. *Journal of School Psychology*, 4(4), 52-58, [https://doi.org/10.1016/0022-4405\(66\)90066-5](https://doi.org/10.1016/0022-4405(66)90066-5)
- De Jong, T. (2000). The Role of the School Psychologist in Developing a Health-Promoting School: Some Lessons from the South African Context. *School Psychology International*, 21(4), 339-357.
- Dean, R. S. (1980). A comparison of preservice and experienced teachers' perceptions of the school psychologist. *Journal of School Psychology*, 18(3), 283-289. [https://doi.org/10.1016/0022-4405\(80\)90070-9](https://doi.org/10.1016/0022-4405(80)90070-9)

- Dimakos, I. C. (2006). The Attitudes of Greek Teachers and Trainee Teachers Towards the Development of School Psychological and Counselling Services. *School Psychology International*, 27(4), 415-426. http://www.elemedu.upatras.gr/english/images/idimakos/Dimakos_2006_School_Psychology_International.pdf
- Erchu, W. P., Raven, B., H., & Whichard, S. M. (2001). School Psychologist and Teacher Perceptions of Social Power in Consultation. *Journal of School Psychology*, 39(6), 483-497. [https://doi.org/10.1016/S0022-4405\(01\)00085-1](https://doi.org/10.1016/S0022-4405(01)00085-1)
- Ford, J. D., & Migles, M. (1979). The role of the school psychologist: Teachers' preferences as a function of personal and professional characteristics. *Journal of School Psychology*, 17(4), 372-378. [https://doi.org/10.1016/0022-4405\(79\)90040-2](https://doi.org/10.1016/0022-4405(79)90040-2)
- Gavrilidou, M., Mesquita, P. B., & Mason, E. J. (1994). Greek teachers' perceptions of school psychologists in solving classroom problems. *Journal of School Psychology*, 32(3), 293-304. [https://doi.org/10.1016/0022-4405\(94\)90020-5](https://doi.org/10.1016/0022-4405(94)90020-5)
- Gilmore, G. E., & Chandy, J. (1973). Teachers' perceptions of school psychological services. *Journal of School Psychology*, 11(2), 139-147. [https://doi.org/10.1016/0022-4405\(73\)90051-4](https://doi.org/10.1016/0022-4405(73)90051-4)
- Gutkin, T. B., & Bossard, M. D. (1984). The impact of consultant, consultee, and organizational variables on teacher attitudes toward consultation services. *Journal of School Psychology*, 22(3), 251-258. [https://doi.org/10.1016/0022-4405\(84\)90006-2](https://doi.org/10.1016/0022-4405(84)90006-2)
- Hartshorne, T. S. (1985). The actual and preferred roles of the school psychologist according to secondary school administrators. *Journal of School Psychology*, 23(3), 241-246. [https://doi.org/10.1016/0022-4405\(85\)90015-9](https://doi.org/10.1016/0022-4405(85)90015-9)
- Illback, R. J., & Maher, C. A. (1984). The school psychologist as an organizational boundary role professional. *Journal of School Psychology*, 22(1), 63-72. [https://doi.org/10.1016/0022-4405\(84\)90052-9](https://doi.org/10.1016/0022-4405(84)90052-9)
- Kaplan, M. S., Chrin, M., & Clancy, B. (1977). Priority roles for school psychologists as seen by superintendents. *Journal of School Psychology*, 15(1), 75-80. [https://doi.org/10.1016/0022-4405\(77\)90064-4](https://doi.org/10.1016/0022-4405(77)90064-4)
- Knoff, H. M., Sullivan, P., & Liu, D. (1995). Teachers' ratings of effective school psychology consultants: An exploratory factor analysis study. *Journal of School Psychology*, 33(1), 39-57. [https://doi.org/10.1016/0022-4405\(94\)00034-6](https://doi.org/10.1016/0022-4405(94)00034-6)
- Knowles, R. T., & Shertzer, B. (1968-1969). Attitudes toward the role of the psychologist and the counselor in the secondary school. *Journal of School Psychology*, 7(1), 40-47. [https://doi.org/10.1016/0022-4405\(68\)90117-9](https://doi.org/10.1016/0022-4405(68)90117-9)
- Leach, D. L. (1989). Teachers perceptions of the work of psychologists in schools. *Australian Psychologist*, 24, 357-376. Retrieved from <http://0-eds.b.ebscohost.com.library.vu.edu.au/eds/search/basic?sid=05b05546-888f-457c-a545-cfb64c618a39%40sessionmgr111&vid=42&hid=103>
- Levinson, E. M., Thomas, A., & Orf, M. (1996) Administrator Perceptions of Actual and Desired Time Spent by School Psychologists in Different Roles and Satisfaction with School Psychologists, *Special Services in the Schools*, 12(1-2), 125-136, DOI: 10.1300/J008v12n01_08 (*Journal of Applied School Psychology*)
- Medway, F. J. (1977). Teachers' knowledge of school psychologists' responsibilities. *Journal of School Psychology*, 15(4), 301-307. [https://doi.org/10.1016/0022-4405\(77\)90037-1](https://doi.org/10.1016/0022-4405(77)90037-1)

- Pérez-González, F., García-Ros, R., & Gómez-Artiga, A. (2004). A Survey of Teacher Perceptions of the School Psychologist's Skills in the Consultation Process: An Explanatory Factor Analysis. *School Psychology International*, 25(1), 30-41.
- Refer, R. (1965). The school psychologist and the teacher: Effective professional relationships. *Journal of School Psychology*, 3(1), 3-18. [https://doi.org/10.1016/0022-4405\(64\)90017-2](https://doi.org/10.1016/0022-4405(64)90017-2)
- Styles, W. A. (1965). Teachers' perceptions of the school psychologist's role. *Journal of School Psychology*, 3(4), 23-27. [https://doi.org/10.1016/0022-4405\(65\)90007-5](https://doi.org/10.1016/0022-4405(65)90007-5)
- Thielking, M., & Jimerson, S. R. (2006). Perspectives Regarding the Role of School Psychologists: Perceptions of Teachers, Principals, and School Psychologists in Victoria, Australia. *Australian Journal of Guidance and Counselling*, 16(2), 211-223. <https://doi.org/10.1375/ajgc.16.2.211>
- Thurlow, M., L., & Ysseldyke, J. E. (1982). Instructional planning: information collected by school psychologists vs. information considered useful by teachers. *Journal of School Psychology*, 20(1), 3-9. [https://doi.org/10.1016/0022-4405\(82\)90035-8](https://doi.org/10.1016/0022-4405(82)90035-8)
- Tyler, M. M., & Fine, M. J. (1974). The effects of limited and intensive school psychologist-teacher consultation. *Journal of School Psychology*, 12(1), 8-16. [https://doi.org/10.1016/0022-4405\(74\)90016-8](https://doi.org/10.1016/0022-4405(74)90016-8)
- Violato, C., Rattan, G., Gornall, M., & Perks, B. (1981). The role of Canadian school psychologists: Perceptions of a sample from the general public. *Journal of School Psychology*, 19(3), 222-225. [https://doi.org/10.1016/0022-4405\(81\)90040-6](https://doi.org/10.1016/0022-4405(81)90040-6)
- Wang, C., Ni, H., Ding, Y., & Yi, C. (2014). Chinese teachers' perceptions of the roles and functions of school psychological service providers in Beijing. *School Psychology International*, 36(1), 77-93.
- Waters, L. G. (1973). School psychologists as perceived by school personnel: Support for a consultant model. *Journal of School Psychology*, 11(1), 40-46. [https://doi.org/10.1016/0022-4405\(73\)90009-5](https://doi.org/10.1016/0022-4405(73)90009-5)
- Watkins, M.W., Crosby, E.G., & Pearson, J.L. (2001). Role of the school psychologist: Perceptions of school staff. *School Psychology International*, 22, 64-73. doi: 10.1037/1045-3830.22.2.145
- Yamamoto, K. (1965). Interpersonal attitudes among school personnel: A preliminary exploration. *Journal of School Psychology*, 3(4), 28-35. [https://doi.org/10.1016/0022-4405\(65\)90008-7](https://doi.org/10.1016/0022-4405(65)90008-7)

Milica Stojković

Dragana Bjekić

Lidija Zlatić

Univerzitet u Kragujevcu, Fakultet tehničkih nauka Čačak;

Pedagoški fakultet Užice

PERCEPCIJA NASTAVNIKA I NJIHOVA OČEKIVANJA OD ŠKOLSKOG PSIHOLOGA

Sažetak

Školska psihologija je vrlo važan i široko rasprostranjen domen psihologije. To je jedna od osnova profesionalnog angažovanja školskih psihologa. Uloge školskih psihologa su različite u kontekstu razvoja školskog okruženja. Promena uloga školskih psihologa je pod uticajem očekivanja nastavnika, direktora škola, učenika, roditelja, predstavnika školskog sistema, javnosti itd. Očekivanja nastavnika su izraz njihovih potreba u profesionalnoj interakciji sa školskim psiholozima. Cilj ove studije bio je ispitati očekivanja nastavnika od školskih psihologa i sveukupne percepcije nastavnika o profesionalnom angažmanu školskih psihologa. Istraživanje se sastoji iz dva dela. Na osnovu opisa strukture profesionalnih aktivnosti školskih psihologa najpre se daje pregled regulacije profesionalnog angažovanja školskog psihologa u Srbiji i susednim zemljama. Centralni deo rada predstavlja pregled studija o očekivanjima nastavnika od školskih psihologa. Uzorak se sastoji od radova na ovu temu objavljenih u osam reprezentativnih časopisa iz ove oblasti: *The School Psychologist*, *School Psychology International*, *Contemporary School Psychology*, *Journal of Applied School Psychology*, *School Psychology Quarterly*, *School Psychology Review*, *Canadian Journal of School Psychology*, *Journal of Psychologists and Counsellors in Schools*. Metaanalitički pristup koristi se u analizi empirijskih i teorijskih istraživanja o očekivanjima nastavnika od školskih psihologa. Rezultati su sledeći: teorijska pozadina većine istraživačkih radova je socio-konstruktivizam; aktivnosti individualnog savetovanja dece i konsultacije sa nastavnicima i roditeljima vide se kao glavne uloge školskih psihologa. Zaključak: Upoređujući propise o angažovanju školskih psihologa u okolnim zemljama i očekivanja glavnih nastavnika od njih, primećuje se odstupanje između propisa i očekivanja nastavnika od školskih psihologa. Potrebno je uskladiti propise uloga školskih psihologa i očekivanja njihovih školskih partnera.

Ključne reči: školski psiholog, nastavnička očekivanja, profesionalne uloge školski psiholog, profesionalne uloge

INCLUSION OF MIGRANT CHILDREN IN FORMAL EDUCATION: CHILDREN'S PERSPECTIVE¹

Abstract

The inclusion of migrant children in the education system is extremely relevant in terms of their psychological wellbeing, resiliency, coping strategies and the development of social competencies. The aim of the research was to understand the children's perspective on preconditions and challenges for the successful inclusion of migrant children in Serbian schools, in order to create safe and supportive school context for the learning and development. Focus group discussions, participative mapping and drawing were conducted with 16 local children, 19 accompanied and 10 unaccompanied migrant children. The results show that both groups clearly notice and differentiate those attitudes/practices of teachers that are discriminatory (lower expectations; ignoring the previous knowledge and competencies children have) from those who motivate students and encourage their learning process (interest in children, encouragement, high expectations, interactive teaching practices). Migrant children highly value education and are very motivated to go to school. Although majority of local children demonstrate high level of empathy for their migrant peers, there are still some local peers who discriminate them. Both groups see language as the main barrier for both learning and socializing. Results are discussed in terms of important conditions for successful inclusion of migrant children.

Key words: *formal education, local and migrant children, inclusion, socialization*

According to the New York Declaration on Refugees and Migrants (adopted by the United Nations General Assembly in 2016), when it comes to children, one of the major obligations of countries migrant children are coming to is to provide them with quality education (UNHCR, 2018). The inclusion of migrant children in the education system is extremely relevant in terms of their psychological wellbeing: education generates feelings of stability and "normalcy" in situations of crisis and uncertainty, promotes the children's resilience, boosts their self-confidence and strengthens their social competences. It is precisely for this reason that exercise of the right to quality education should be an integral part of support to migrant children (UNHCR, 2016a).

¹ This study was part of the project: *Inclusion of children and parents in refugee and migration situation*, realized by CIP - Center for Interactive Pedagogy and its external experts, with the support of Save the Children International. This paper was also a result of the project 179018, supported by Ministry of Education, Science and Technological Development of the Republic of Serbia.

The obstacles migrant children in various countries face in the process of inclusion in the education system are numerous and regard both the *accessibility* of education and its *quality* (Kovač-Cerović & Vulić, 2016). Factors that hinder access are lack of documents necessary for enrolment in school, the distance of the schools, lack of transportation, lack of escorts, et al. Obstacles hindering school *attendance* mostly include lack of both material (textbooks, school supplies, school meals, et al) and social support (by the teachers and the local children). The obstacles affecting the children's level of *achievements* are directly related to the quality of education: a) the level of segregation from local children, b) the teachers' level of intercultural competences, and c) the extent to which the curricula of the countries they have come from differ from those of the host countries.

Host countries differ in terms of how they organize education for migrant children. Some of them integrate refugees in schools with local children (in separate classrooms or in integrate classrooms), others set up separate schools in refugee camps. Both strategies have some advantages as well as disadvantages: integration of migrant children avoids segregation on one hand, but on the other refugee children might face prejudices and discrimination and teaching might not be tailored to their language or psycho-social needs (Shuayb, Makkouk & Tuttunji, 2014). Similarly, when schools are set up in refugee camps, they often lack qualified teachers (UNHCR, 2016b).

Language issue proved to be one of the main obstacles for inclusion of migrant children. Some studies show that migrant children who start the school without knowing the language of the host country, are in a disadvantaged position comparing to local students, and they cannot be fully included in the learning process until they overcome the language barrier (OECD, 2010). When they acquire the language, migrant children usually perform at the same level as their native peers (De Paola & Brunello 2016). It was shown that an early start in language learning is the most effective in terms of improving school readiness (Nusche, 2009). That is why many stakeholders advocate for developing remedial education programs for migrant students, that would focus on majority-language skills (followed with learning support in their native language) in order to fill the gap between their skills and knowledge and those required in the national curriculum of the host country (Taguma et al., 2010). However, the danger of those remedial programs in special classes is that it might reinforce segregation and justify different forms of discrimination against migrant children. Segregation proved to be one of the main obstacles for both well-being of migrant children and for their academic achievement. It contributes to inequality in students' educational outcomes, because it was found that segregated schools limit the probability that a migrant child will continue to secondary education (Crul & Schneider, 2009). Studies show benefits of mixed classrooms: on one hand the mixed classrooms help students to achieve better academic outcomes and on the other, they foster social inclusion (Dumčius et al. 2013; OECD 2010).

Although there are many good practice examples from the countries with a long tradition of educating migrant children, the question of their applicability to

a different context arises. The context in Serbia differs a lot in that respect as most migrants perceive it as a transit country and do not plan on settling down in it. This has hindered the process of preparing and integrating the migrant children in the education system, due to uncertainties about how many of them will stay on in Serbia and for how long. Some experiences can, however, be useful in the Serbian context as well. An analysis of various challenges faced by host countries and the practices they have applied to address them shows that it is necessary to a) organize the learning of the language in a natural setting (in school, with other peers), coupled with additional support in school, b) prepare the teachers for work in a multicultural context in which they will pay attention to the needs and particularities of all children, and c) implement psychosocial support programs with the children and their parents (IRC, 2014; Kovač-Cerović & Vulić, 2016).

Context and goals of the study

Until early 2016, migrant children had been included in various forms of informal education in asylum and reception centers in Serbia. Such informal education, provided by non-government organizations, mostly entailed creative workshops, psycho-educational workshops aimed at improving life skills, and Serbian, English and German language lessons. In 2016 Serbia turned from a “transit” country to a country in which migrants have been living between several months and years, which has led to increased numbers of (children) migrants and raised the issue of the education of migrant children. In cooperation with the Ministry of Education, Science and Technological Development (Ministry) and an NGO, UNICEF launched a project preparing several Belgrade schools for the enrolment of migrant children in the 2016/17 school-year. In the 2017/18 school-year the Ministry issued Professional Guidance on the Inclusion of Refugee and Asylum Seeking Pupils in the Education System ordering the enrolment of all migrant children registered in Serbia in elementary schools and defining the enrolment requirements and procedures. Staff of the newly included schools attended training on intercultural education, learning Serbian as a foreign language and implementing the Ministry’s Guidance. By the end of 2017, 447 migrant children have been enrolled in schools in Serbia.

The *research aim* was to understand the preconditions and challenges for the successful inclusion of migrant children in Serbian schools, in order to create safe and supportive school context for the learning and development. Although the whole study included perspectives of different stakeholders (teachers, school management, school counsellors, Ministry representatives, NGO representatives, parents, etc.) in this paper we would focus on children’s perspective. Our goal was to understand the experience of both children migrants and local children when it comes to the obstacles and support in the inclusion process in schools.

Methodological framework

Participants

Participants were 16 local (7 boys and 9 girls) and 29 migrant children (23 boys and 6 girls from Afghanistan, Iran and Iraq) from five elementary schools in the territory of the City of Belgrade with various experiences in working with migrant children and attended by a total of 97 migrant pupils (70 in higher and 27 in lower grades). Migrant children living in the Krnjača Asylum Center (Belgrade), who took part in the research, were attending one of the six Belgrade schools (five of which took part in the research).

Table 1. *Research participants*

Local children attending lower elementary school grades	9
Local children attending higher elementary school grades	7
Accompanied migrant children attending lower elementary school grades	10
Accompanied migrant children attending higher elementary school grades	9
Unaccompanied migrant children attending higher elementary school grades	10

Data Collection Procedure

Parents/guardians of (both migrant and local) children signed the research consent forms before the research began. The consent forms for the migrant participants had been translated into Farsi. Children were informed of the research goal and procedure, and the way their data would be used and kept (in compliance with the protection of privacy principle), and they also gave their informed consent. They were clearly told that their participation was voluntary and that they would not bear any consequences if they decided not to participate in it anymore at any time. Psychologists and pedagogues experienced in working with children from vulnerable groups who conducted the focus group interviews, were taking care of the research participants in order not to be additionally stressed by the research questions or harmed in any other way.

Focus group discussions were organized in schools for local children and in the camp management office in Krnjača Asylum Center for migrant children. Farsi interpreters helped in communication with the migrant children. The focus group interviews included questions on motivation for schooling, expectations from school, learning experience, socialization, coping mechanism and plans for the future. The views and experiences of both local and migrant younger children (1st to 4th grade) were explored with the help of visual techniques, such as drawing, mapping and modeling.

Results

Interviews with children reveal a few important narratives connected to motivation for education, teaching and learning experience of migrant children, language barriers, social relations, empathy and experience of exclusion/discrimination and stress:

- *Migrant children highly value education and are very motivated to go to school*

Almost all research participants said they had been happy when they heard they would be going to school, because they would learn various languages, get to know another culture and customs, find new friends, acquire study habits and learn how to behave in a different school. Their parents had extended support to all of them and been happy their children would be going to school. Unaccompanied children say they are motivated to attend school, that they want to use their time in Serbia well (*I don't want to waste my time, I want to learn something new*). They are especially interested in foreign languages, math and natural sciences. They say that they want to learn Serbian while they are here and that this is a chance to get to know the European education system and prepare themselves for pursuing their education. All of them say they want to continue their schooling and to have the opportunity to enroll in college.

- *Local children expressed open and positive attitudes toward enrolment of migrant students and they demonstrated high level of empathy for their migrant peers*

Local children were informed about the migrants' enrolment in school by their parents and teachers who said that it would be excellent opportunity to learn about another culture and religion. Most children said they had looked forward to their enrolment because they would meet someone from another culture. As one girl put it: *"I was OK with it and I wanted to learn a bit more about their culture, faith, religion, what they had lived through, how they travelled, where they'd been"*. Some of their peers, however, were displeased (*"Boo, migrants are coming, oh no..."*) and were still avoiding the contact with them. Research participants demonstrated high level of empathy for their migrant peers. Younger children said they had been happy when they heard new children were coming to school because they would meet new friends and have fun with them, but also because those children had fled war and come to a safer country. Some were a bit confused because they did not know much about the countries the migrant children had come from and one girl said that she was sad on the first day of school because she felt sorry for them *"because some of them maybe don't have parents."* Both the younger and older children have shown understanding for the situation in which migrant children have found themselves (*"They left their country, their school, their classmates and friends:" "All they had is there and they just suddenly came to another place, with a different religion, where everything is different"*), the difficulties they have in getting used to the new setting, language and customs, as well as their current living conditions (e.g. *"Some say they stink, but that's not true at all, although they do not have the same conditions for maintaining their personal hygiene as we do"*). Having spent time with them, they have learned about the migrant children's customs and understand why they behave the way they do even when their behavior differs from that of their peers in Serbia. As one local girl put it: *"The problem is that in their culture, boys hang around only with boys, and girls only with girls. When I ask a migrant boy something, I have the impression that he is ashamed because they are not used to that, that is inconceivable in their religion."*

- *Younger migrant children have positive experience in school, but older children report both positive and negative experiences*

As opposed to the younger children, all of whom had positive experiences of their first day in school, the experiences of older children range from extremely positive to extremely negative. One girl said that boys of their age had made fun of them, nudged them and “made faces at them” and she ascribed this to the fact that she had come from another country. An older girl wearing a head scarf said she used to get strange looks at the beginning but that they were used to her now and that she had no problems. One boy said the other children had laughed and sneered at them when they walked into class (because they were late). Another boy said he had not felt good, because he felt invisible during the one class he attended, so he changed schools and now feel like the other children. A boy, who enrolled in school in the middle of the term, said with a chuckle that he had not had any problems when he started school because the other (migrant) children had “paved the way” for him and that no one had given him any strange looks.

- *Even though migrant children were accepted by their peers and teachers and they are together with their local peers in classes, most of migrant children feel isolated and they tend to socialize mainly with other migrant children.*

Local children said the migrant children spent breaks together, that they did not go outside, or that they sat in the library. Younger children also confirmed that their migrant peers were isolated and spent time with children from their countries, ascribing this to the language barrier (“*They speak their own language so it’s easier for them to play with each other*”) and the need to be part of their group (“*They feel happy when they can be with their friends*”). The migrant children’s views coincide with those of the local children. In reply to the question what they did during the breaks and who they played with, the migrant children said that they mostly spent breaks with other migrant children. Local and migrant boys interact to a greater extent than girls, rallying to play games not requiring of them to speak the same language (flip cards or play soccer), whereas the girls do not play any games together. Despite participation in sports games or communication through mimicry, which the migrant boys mentioned, some migrant boys are still isolated because they do not speak the language. Nearly all the older children agreed that migrant boys have adjusted better and were better accepted than the girls, ascribing this to cultural differences (*Girls are a bit more taciturn, maybe because of their head scarves or the way they dress or because of their religion, faith and other things*). One girl said she had the impression that boys were more resilient and overcame the initial lack of understanding in the community more easily than the girls, “*who did not want to impose themselves, but distanced themselves in a way, to a world of their own.*”

- *Local children report more often than a migrant children cases of explicit or implicit discrimination of migrant children*

Students in higher grades talked about discrimination of migrant children and they said that it was perpetrated only by the boys. As one girl said: “*I think*

they're having a hard time in our class because hardly any of the boys accept them and if the migrant kids sit next to them, they immediately change desks, and saying 'Oh, gross, urgh!' and so on. Several days ago, a migrant girl sat next to our classmate and he moved instantly, he just got up and left." Even when there is no direct discrimination, the children have noticed that many of their peers did not talk to the migrant children and refused any contact with them. They used to ridicule them at the beginning as well, *"they treated them as if they were dumb, taught them swear words, as if they were parrots."* As opposed to the older children, the younger children do not think that the migrant children are discriminated against. Migrant children did not mention the incidents local children talked about, wherefore it is unclear whether they did not perceive them as discrimination and prejudice or simply did not wish to talk about them. During a focus group interview, a boy told the girls commenting how other boys treated them not to say anything bad about the school so as not to offend researchers. That reaction reinforces the presumption that there are acceptance issues but that the children do not want to talk about them, among other things, because they think that is "expected and normal" and that they "deserve" such treatment because they are migrants.

- *Both groups clearly notice and differentiate those attitudes/practices of teachers that are discriminatory (lower expectations; ignoring the previous knowledge and competencies children have) from those that motivate students to learn (interest in children, encouragement, high expectations).*

The local children think that how the migrant children will feel in class and whether or not they will find classwork interesting mostly depends on the teachers' views. As they explained: *"It all depends on how the teachers accept them, if they accept them well and engage them, they find it interesting, like we do, if not, they have nothing to do and then they're bored."* Or, *"Some teachers insist on the Cyrillic script although the children do not understand it."* The teachers' views also affect the way they organize class and the efforts they put in tailoring the content to all the children. As one girl put it: *"Some teachers think the refugee children will not stay long in Serbia so that they don't have to study, while other teachers want the refugee kids to learn the language and show others all the stuff they can learn."* Migrant children also spoke about this discrepancy. They say there are teachers who try to help them and those who "don't notice" them. When asked to elaborate the latter view, one migrant boy said that the teachers mostly worked with the local children, *"they know we don't speak the language and don't ask us whether or not we understand. They don't even ask us what we know in those subjects. There is the language problem, but they don't try to find out what we know. The IT teacher tries very hard. He comes up to every child and shows us all what we are supposed to do. Every child receives the same information."*

Local and migrant children's insights about delivery of teaching are particularly important. As opposed to local children in the first four grades, who thought their migrant peers were mostly happy in class (*They play with us; Everything is new and fun to them; They're meeting new friends; They're protected*

from war and bombs), the older local children said that migrant children were insufficiently engaged in class, *“isolated somehow”* and that *“we’re doing one thing and they’re doing another”* in lots of classes. They draw a distinction between the teachers’ individualized approach to migrant children and situations in which they let them engage in other activities so as not to disrupt class. They say that some teachers are trying to tailor the material to the migrant children, or organize peer education through work in small groups.

Migrant children confirmed these allegations as well. Those not speaking Serbian spoke about the lack of engagement in class the most, which is why they were bored in school. They said that use of Google Translate and their peers’ help in interpretation did not suffice for following class. They, in particular, complained about ex cathedra classes during which the teachers just delivered lectures. Their favorite subjects are those that will be of use to them (foreign languages and IT) or the ones taught by teachers who try hard (*I don’t like Math, but the teacher tried hard and I found it interesting*, as one boy put it).

- *Both local and migrant children found language issue as the main barrier for socialising – especially for girls*

During the interviews it became clear that the satisfaction of migrant children with different aspects of the school life depends on language knowledge. Those students who know Serbian or could fluently communicate in English are better integrated in the school, have better relations with teachers and peers and have more academic success. Those students feel more accepted and they have the sense of belonging to the school community. The main cause of isolation of migrant children is language barrier. As one migrant boy said: *“How can I explain anything when I don’t speak the language? They have their games they play with each other, but not with us.”*

- *Young children do not show signs of stress but older children do, especially unaccompanied children.*

Unaccompanied children said that their anxiety about their safety in the camp caused them the most stress. One of the problems they encounter on a nearly everyday basis are the so-called “crashers” (migrants not living in the camp), who break into their rooms almost every night, steal their belongings and threaten them. They do not feel safe, they cannot sleep (they say they sleep a couple of hours a night at most), they are anxious, which also takes its toll on their studying. They would like to be accommodated together in a barracks, or in the barracks with the families, where they would feel safer. They are not of the impression that the people looking after them want to see this problem solved, and they feel they are left to their own devices and that no one cares about them.

Conclusions and recommendations

Inclusive context means that multiple social identities of every child are respected and promoted and that the differences are seen as an opportunity for learning and development. In inclusive context every child has the feeling that he/she belongs to a group, that his/her identity is respected and children are encouraged to learn from each other with joy (Derman-Sparks, 2004). In inclusive context a child's identity and belonging are promoted throughout curriculum and the schools closely cooperate with parents to meet the individual needs of a child (Department of Children and Youth Affairs, 2016). Equity is important aspect of inclusive education, because it presumes that some children (children who do not have the same starting positions) need more support (or other forms of support) in order to catch up with other children.

Listening to children's voices in this research reveals three important conditions for successful inclusion of migrant children: a) preparation of local children through the information process and empathy development, b) intensive language learning and c) encouraging teachers' professional competencies for working with children of different cultural backgrounds.

The importance of providing information is twofold: on one hand, it might be very effective way of addressing confusion, some fears and concerns children might have while facing diversity, and on the other hand it serves motivational purposes as well – encourages children's empathy and points to the benefits they will have from interaction with their migrant peers (such as improving their knowledge of English, learning about other cultures, developing communication skills and intercultural competencies). Providing relevant information is the first important step in the process of deconstruction of prejudices towards certain social groups, but it is not sufficient. That is why school needs to put an effort to change emotions and actions towards migrant families and children. Talking with the local children about war and refugees, other cultures and customs, and encouraging their empathy and development of multicultural sensitivity through movies, books or various workshops, might be the efficient way of creating inclusive school environment.

Since language appeared to be one of the main obstacles for migrant children's active participation and involvement in school, it is strongly recommended to provide conditions for facilitating the children's mastery of Serbian as soon as possible. We believe that the so called "mixed model" applied in some European countries might be efficient in Serbian context too. According to this model migrant children attend regular classes from the very start, and learn the language "along the way" (both in class and through interactions with their peers), but they are also provided with additional support, i.e. additional language lessons in school (Kovač Cerović & Vulić, 2016). In this way migrant children would not be segregated and isolated and they would get additional support at the same time. Engaging a greater number of cultural mediators/

interpreters as soon as children start school, might be effective support to the children at the beginning. Other forms of support could be training for class and subject teachers on how to integrate Serbian language learning in their classes.

According to OECD studies, teachers' ability to manage diversity on different levels plays a central role in the inclusive education (OECD, 2010). That is why teachers' professional development needs to address different levels: a) Teacher's personal level – teachers need to become aware of their own biases and misconceptions concerning different cultural groups and the process of teaching and learning students from those groups. Some studies show that perception of teacher fairness and respect for all students contributes to their resilience and psychosocial wellbeing (Tol, Song & Jordans, 2013; World Bank 2014). Also, high expectations teachers have from students from different cultural groups strongly influence their education resilience and wellbeing, as it was shown in some studies (Gizir & Aydin, 2009); b) Individual student level – teachers should be trained to individualize their teaching and tailor it to the knowledge, competences and needs of each individual child; c) Classroom level – teachers should be able to use interactive teaching methods in order to foster interaction between students from different cultural backgrounds, and to show the learning opportunities that come from multicultural contexts. Teachers also need to be aware of the benefits of peer teaching, because local pupils, with highly developed cultural sensitivity and who speak English well, can provide major learning support to their migrant peers; and d) School life level – teachers should include parents and communities, which requires sensitivity to different cultural practices and intercultural communication skills. This also enhances the role of schools in effective integration (OECD, 2010). The whole school needs to promote democratic and intercultural values and disseminate information about the migrants' rights to education, accommodation and protection, in order to sensitize the local population, dispel its prejudices, and improve the migrant children's feelings of safety and acceptance.

References

- Crul, M. & Schneider, J. (2009). *The Second Generation in Europe: Education and the Transition to the Labour Market*. London: OSI.
- De Paola, M. & Brunello, G. (2016). *Education as a tool for the economic integration of migrants, EENEE Analytical Report (No. 27)*. Luxembourg: Publications Office of the European Union.
- Department of Children and Youth Affairs (2016). *Diversity, Equality and Inclusion Charter and Guidelines for Early Childhood Care and Education*. Dublin: Minister of Children and Youth Affairs.
- Derman-Sparks, L. (2004). Early Childhood Anti-Bias Education in the USA. In: Van Keulen, A. (Ed.). *Young Children aren't Biased, Are They? How to handle diversity in early childhood education and school* (13–22). Amsterdam: B.V. Uitgeverij.

- Dumčius, R., Siarova, H., Nicaise, I., Hut, J. & Balčaitė, I. (2013). *Study on educational support for newly arrived migrant children*. Luxembourg: Publications Office of the European Union.
- Gizir, C. A. & Aydin, G. (2009). Protective factors contributing to the academic resilience of students living in poverty in Turkey. *Professional School Counseling*, 13 (1), 38 – 49.
- IRC (2014). *Healing classrooms, healing families, healing communities. Social and emotional learning at the IRC*. Retrieved from: <http://doc.iiep.unesco.org/wwwisis/repdoc/peic/2960.pdf>
- Kovač-Cerović, T. & Vulić, I. (2016) *Supporting the Education of Refugee and Refugee Children and Youth*. Education Support Program. Open Society Foundation.
- Nusche, D. (2009). *What Works in Migrant Education? A Review of Evidence and Policy Options – OECD Education Working Paper No. 22*. Paris: OECD Publishing.
- OECD (2010). *Educating teachers for diversity*. Paris: OECD Publishing.
- Shuayb, M., Makkouk, N. & Tuttunji, S. (2014). *Widening access to quality education for Syrian refugees: the role of private and NGO sectors in Lebanon*. Beirut: Centre for Lebanese Studies.
- Taguma, M., Kim, M., Brink, S. & Teltemann, J. (2010). *Sweden – OECD Reviews of Migrant Education*. Retrieved from: <https://www.oecd.org/sweden/44862803.pdf>
- Tol, W. A., Song, S. & Jordans, M. J. D. (2013). Annual research review: Resilience and mental health in children and adolescents living in areas of armed conflict – A systematic review of findings in low- and middle-income countries. *Journal of Child Psychology and Psychiatry*, 54(4), 445–460.
- UNHCR (2016a). *Left Behind: Refugee Education in Crisis*. Geneva: UNHCR.
- UNHCR (2016b). *Education for refugees – Priority activities and requirements supporting enrolment and retention in 2016*. Retrieved from: <http://reporting.unhcr.org/sites/default/files/UNHCR%20Education%2020160810.pdf>
- UNHCR (2018). *Quick Guide: New York Declaration*. Geneva: UNHCR
- World Bank (2014). *Learning from local practices: Improving student performance in West Bank and Gaza*. Washington: World Bank. Retrieved from: <http://documents.worldbank.org/curated/en/493611468321573456/pdf/ACS94600WP0P1435640Box385265B00OUO090.pdf>

Jelena Vranješević

Nataša Simić

Univerzitet u Beogradu, Filozofski fakultet

UKLJUČIVANJE DECE MIGRANATA U FORMALNO OBRAZOVANJE: DEČIJA PERSPEKTIVA²

Sažetak

Uključivanje dece migranata u obrazovni sistem izuzetno je relevantno u pogledu njihovog psihološkog blagostanja, rezilijentnosti, strategija suočavanja i razvoja socijalnih kompetencija. Cilj istraživanja bio je razumeti dečiju perspektivu preduslova i izazova za uspešno uključivanje dece migranata u srpske škole, kako bi se stvorio bezbedan i podržavajući školski kontekst za učenje i razvoj. Diskusije u fokus grupama, participativno mapiranje i crtanje sprovedeni su sa šesnaestoro lokalne dece, devetnaestoro dece u pratnji i desetoro dece migranata bez pratnje. Rezultati pokazuju da obe grupe jasno primećuju i razlikuju one stavove/prakse nastavnika koji su diskriminatorni (niža očekivanja; ignorisanje prethodnih znanja i kompetencija koje deca imaju) od onih koji motivišu učenike i podstiču njihov proces učenja (interesovanje za decu, ohrabrenje, veliko očekivanja, interaktivne prakse predavanja). Deca migranti visoko cene obrazovanje i veoma su motivisana da idu u školu. Iako većina lokalne dece pokazuje visok nivo empatije prema vršnjacima migrantima, još uvek postoje lokalni vršnjaci koji ih diskriminišu. Obe grupe vide jezik kao glavnu prepreku i za učenje i za druženje. O rezultatima se diskutuje u smislu važnih uslova za uspešno uključivanje dece migranata.

Cljučne reči: *formalno obrazovanje, lokalna i deca migranti, uključivanje, socijalizacija*

²This study was part of the project: *Inclusion of children and parents in refugee and migration situation*, realized by CIP - Center for Interactive Pedagogy and its external experts, with the support of Save the Children International. This paper was also a result of the project 179018, supported by Ministry of Education, Science and Technological Development of the Republic of Serbia.

PSYCHOMETRIC PROPERTIES OF BULGARIAN VERSION OF ADULT EATING BEHAVIOUR QUESTIONNAIRE

Abstract

The Adult Eating Behaviour Questionnaire is a comprehensive self-reported measure of appetitive traits capturing several eating behaviours, which are related to weight in adults. The aim of this preliminary study was to test the validity and reliability of the Adult Eating Behaviour Questionnaire (AEBQ) in a Bulgarian sample. The sample consisted of 267 Bulgarian individuals (67% women and 33% men) who completed the Bulgarian version of the AEBQ along with information on sociodemographic characteristics, body weight and height. Construct validity was evaluated by exploratory factor analysis (EFA) with the Hunger scale removed and reliability was assessed by Cronbach's alpha coefficient. The EFA uncovered 7 scales for the Bulgarian sample which are the same as those theoretically expected: Enjoyment of food, Emotional over-eating, Emotional under-eating, Food fussiness, Food responsiveness, Slowness in eating, Satiety responsiveness. Reliability estimates for the scales were good – Cronbach's alpha between .70 – .90. Confirmatory factor analysis (CFA) was also used to test the 7-factor model. The CFA revealed a 7-correlated factor structure as a model fit similar to the one of the original questionnaire. Correlations between scales and BMI (based on weight and height data) were also determined. The study supports the use of the AEBQ in a Bulgarian sample as a valid and reliable tool for assessing eating behaviour among adults.

Keywords: eating behaviour, appetitive traits, psychology of eating, psychometrics, BMI

Background

Currently, we are witnessing a global obesity epidemic. According to the latest statistics from World Health Organization (WHO, 2018) worldwide obesity has nearly tripled since 1975 and about 13% of the world's adult population (11% of men and 15% of women) were obese in 2016. Obesity is a topic of interest for many researchers who are trying to understand the reasons for the current epidemic as well as to develop effective strategies to prevent it.

On the one hand, there are environmental factors: the so-called "obesogenic environment" including change in food quality and supply. Highly palatable and energy-dense foods have become more accessible and cheaper (Llewellyn&Fields, 2017). In addition to the change in dietary intake, there is a decrease in physical

¹ Corresponding author vel.hristova@gmail.com

activity due to the sedentary lifestyle of the modern person (Sahoo et al., 2015). On the other hand, there is genetic predisposition (Nguyen&El-Serag, 2010). Wardle (2015) was the first to propose that the genetic susceptibility to obesity is partly attributable to appetitive phenotypes and introduced the so-called behavioral susceptibility theory (BST). As a result, in 2001 the Child Eating Behaviour Questionnaire (CEBQ) was developed (Wardle et al., 2001). The aim of this instrument was to measure the individual appetitive characteristics that affect the body mass index (BMI) and could contribute to obesity in children. In 2011 the Baby Eating Behaviour Questionnaire (BEBQ) (Llewellyn et al., 2011) was developed. In order to measure appetitive traits and their influence on weight across the life-course, the Adult Eating Behaviour Questionnaire (AEBQ) was developed recently (Hunot et al., 2016). There is evidence that appetitive traits are related to body mass index (BMI) both in children (Viana et al., 2008) and in adults (Hunot et al., 2011). Food avoidance traits tend to be associated with lower BMI and food approach traits – with higher BMI.

Before the introduction of these new instruments for adults the Three-factor Eating Questionnaire (Stunkard&Messick, 1985) and the Dutch Eating Behaviour Questionnaire (Van Strien et al., 1986) were the only ones broadly available. The two instruments are measuring, however, only three constructs. The AEBQ, on the other hand, consists of eight different scales - four “food approach” scales: Food Responsiveness, Emotional Over-eating, Enjoyment of Food, Hunger and four “food avoidance” scales: Satiety Responsiveness, Emotional Under-eating, Food Fussiness and Slowness in Eating.

The AEBQ is validated in the UK and Australia (Mallan et al., 2017). The aim of the present study is to examine the psychometric properties of the AEBQ for a Bulgarian sample including evaluation of the factor structure and examination of the associations between the food approach and food avoidance appetitive traits with body mass index.

Method

Participants and procedure

The analysis was conducted on 268 participants, mostly female (66.8%), age 18-25 (34.7%). The characteristics of the sample are presented in Table 1.

Table 1: Descriptive characteristics of the sample

Characteristics n=268	n	%
Gender		
Female	179	66.80
Male	89	33.20
Age		
18 - 25	93	34.70
26 - 30	27	10.10

31 - 35	33	12.30
36 - 40	15	5.60
41 - 50	42	15.70
Above 50	58	21.60
Highest degree or level of school		
Primary School	6	2.20
Secondary School	117	43.70
Bachelor`s degree	45	16.80
Master`s degree	89	33.20
PHD	11	4.10
Marital Status		
Single	81	30.20
In a relationship	48	17.90
In a domestic partnership	35	13.10
Married	82	30.60
Divorced	14	5.20
Widowed	8	3
Place of residence		
Capital	142	53
Big city	62	23.10
Small town	52	19.40
Village	12	4.50

Participants were invited to complete an anonymous online survey via Google forms.

281 participants took part in the online survey. 13 were below age of 18 and thus were excluded. The respondents were familiar with the fact that the collected data will be used for scientific purposes only. No personally identifiable information was collected.

Measures

Adult Eating Behaviour Questionnaire (AEBQ) (Hunot et al., 2016)

Appetitive traits were assessed via the AEBQ. The instrument was designed to measure 4 food approach scales and 4 food avoidance scales. The 4 food approach scales are Food Responsiveness, Enjoyment of Food, Emotional Overeating and Hunger.

Food Responsiveness Scale

The scale is measuring desire for food following exposure to palatable food cues. Therefore, it is a scale assessing external eating. It consists of 4 items (e.g. "When I see or smell food that I like, it makes me want to eat."), with a 5-point response format (*from strongly disagree to strongly agree*).

Enjoyment of Food Scale

This scale is measuring general interest in food, desire for eating and enjoyment of food. It consists of 3 items (e.g. "I love food."), with a 5-point response format (*from strongly disagree to strongly agree*).

Emotional Overeating

This scale assesses eating due to negative emotions. It consists of 5 scales (e.g. "I eat more when I'm annoyed."), with a 5-point response format (*from strongly disagree to strongly agree*).

Hunger Scale

This scale is measuring self-reported level of physical hunger. After communication with the authors and based on their recommendation the Hunger subscale was removed. There is strong correlation between the Hunger scale and the Food Responsiveness scale and both constructs appeared to me overlapping (Hunot et al. 2011). There is evidence that this subscale is not contributing to a good model fit not only based on the author's opinion but also based on a study with an Australian sample (Mallan et al., 2017).

The 4 food avoidance scales are Food Fussiness, Emotional Undereating, Satiety Responsiveness and Slowness in Eating.

Food Fussiness Scale

This scale is measuring food pickiness or being selective in food choice. It consists of 5 items (e.g. I often decide that I don't like a food, before tasting it."), with a 5-point response format (*from strongly disagree to strongly agree*). 3 of the items are reversed (e.g. "I enjoy tasting new foods.").

Emotional Undereating Scale

The scale measures the opposite of emotional overeating. It refers to eating less during negative emotions. It consists of 5 items (e.g. I eat less when I'm worried."), with a 5-point response format (*from strongly disagree to strongly agree*).

Satiety Responsiveness Scale

The scale measure levels of satiety when eating. It consists of 4 items (e.g. "I often get full before my meal is finished."), with a 5-point response format (*from strongly disagree to strongly agree*).

Slowness in Eating Scale

This scale measures the speed of eating and consists of 4 items (e.g. "I am often last at finishing a meal."). It has 1 item reversed ("I often finish my meals quickly.").

The questionnaire was translated into Bulgarian by 3 independent translators. A reverse translation was conducted by a fourth independent translator, who is

an English language philologist. The final version of the Bulgarian version was discussed with a professional editor, who is also an English language philologist. Special precautions were taken with the Emotional Overeating scale and the Emotional Undereating scale because they include items that describe eating patterns during 5 emotions – being annoyed, angry, worried, upset and anxious. The word “worried” and “anxious” have the same literal translation in Bulgarian and in order to ensure adequate construct representation a direct translation was not possible (Vijver&Poortinga, 2005). Therefore, an adaptation was conducted that made it possible to differentiate between anxiety and worry in Bulgarian.

The final version for the Bulgarian study consisted of 30 items (with the Hunger scale excluded) instead of the 35 items in the original study.

Demographic Information

Participants’ self-reported age, gender, highest level of education completed, marital status and place of residence.

BMI Information

Participants’ self-reported body mass index or BMI-related values (height and weight).

Data Analysis

A “hybrid” approach for factor analysis was chosen where an exploratory factor analysis was initially run and follow-up confirmatory factor analysis was conducted (Matsunaga, 2010).

Exploratory factor analysis (EFA) was used to uncover the factor structure for the Bulgarian sample using SPSS version 23.0. Factors were extracted using oblimin rotation as correlation between factors is expected. Average communality is close to .60 and the sample size exceeds 250, therefore factors were retained based on Kaiser’s criterion and eigenvalues greater than 1. Variables with loadings above .30 are retained.

Confirmatory factor analysis (CFA) was conducted to test the model fit, using IBM AMOS version 21.0. Two models were tested. Model 1 tested the model fit from the EFA for the Bulgarian sample. Model 2 tested the model fit with one item deleted. Modification indexes were evaluated and covariances of error terms on the same factors were allowed to test the models. Model fit was assessed based on the following recommendation: Tucker Lewis Index (TLI) $>.90$ (Tucker&Lewis, 1973), Comparative Fit Index $>.90$ (Bentler, 1990) and Root Mean Square Error of Approximation (RMSEA) $<.08$ (Hu&Bentler, 1990).

Cronbach’s alphas were calculated for each of the scales to evaluate the internal consistency.

Correlations between scales were calculated using Spearman’s rho correlation coefficient. To assess external validity the correlations between scales and BMI were calculated.

Results

Exploratory Factor Analysis

Before analyzing the results of the factor analysis an initial screening of data was conducted. Sampling adequacy was estimated using the Kaiser-Meyer-Olkin measure (KMO) of sampling adequacy. The KMO value is .83 falling into the “meritorious” category of Hutcheson and Sofroniou (1999), (Table 2). All individual KMO values were greater than the absolute minimum of .50 (Field, 2013). The correlation matrix shows no values above .90 and no multicollinearity was observed.

Table 2: Sampling adequacy

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.83
Bartlett's Test of Sphericity	Approx. Chi-Square	4644.13
	df	435
	Sig.	0

A principal-axis factor analysis with oblimin rotation was conducted. Eigenvalues were obtained for each factor in the data. Based on Kaiser's criterion for eigenvalues above 1, seven factors were established. In combination they explained 68.69% of the variance (Table 3). Table 3 also shows the factor loadings after the rotation. The 7 factors are as follows: Food Responsiveness, Emotional Over-eating, Enjoyment of Food, Satiety Responsiveness, Emotional Under-eating, Food Fussiness, and Slowness in Eating. The factors are the same as those from Hunnot's original article (with the Hunger scale removed).

There is, however, one difference. The Enjoyment of Food scale for the Bulgarian sample consists of 4 instead of 3 variables. The Food Fussiness item “I enjoy a wide variety of food” loads on the Enjoyment of Food scale and shows much better correlation with this scale. The factor loading is slightly below .40 (.39) and could be considered as target for elimination. Therefore, the model fit in the CFA was tested with the item included and excluded.

Table 3: Factor loadings of a 30 item AEBQ (n=268)

	EOE	EF	SE	FF	EUE	FR	SR
I eat more when I'm upset	0.87						
I eat more when I'm annoyed	0.84						
I eat more when I'm anxious	0.83						
I eat more when I'm worried	0.79						

I eat more when I'm angry	0.69						
I love food	0.79						
I enjoy eating	0.76						
I look forward to mealtimes	0.43					0.39	
I enjoy a wide variety of foods	0.39						
I eat slowly	0.93						
I often finish my meals quickly	-0.77						
I am often last at finishing a meal	0.73						
I eat more and more slowly during the course of a meal	0.60						
I am interested in tasting new food I haven't tasted before	-0.78						
I enjoy tasting new foods	-0.74						
I refuse new foods at first	0.71						
I often decide that I don't like a food, before tasting it	0.62						
I eat less when I'm annoyed	0.88						
I eat less when I'm upset	0.88						
I eat less when I'm anxious	0.85						
I eat less when I'm worried	0.83						
I eat less when I'm angry	0.79						
I am always thinking about food	-0.73						
Given the choice, I would eat most of the time	-0.65						
I often feel hungry when I am with someone who is eating	-0.50						
When I see or smell food that I like, it makes me want to eat	-0.39						
I get full up easily	0.65						
I cannot eat a meal if I have had a snack just before	0.55						
I often get full before my meal is finished	0.55						
I often leave food on my plate at the end of a meal	0.48						

Eigenvalues	6.93	3.80	2.98	2.54	1.84	1.39	1.11
% of variance	23.10	12.67	9.94	8.48	6.12	4.65	3.70

Confirmatory Factor Analysis

A confirmatory factor analysis was conducted based on the results from the exploratory analysis. The 30 items were entered into a 7-factor model. The first model represents the results from for the Bulgarian sample based on the EFA where the "I enjoy a wide variety of food" item is included in the Enjoyment of Food scale. Factor loadings were all $>.40$ with the exception of the "I enjoy a wide variety of food" item (0.36). The model showed good fit of the data (Table 4). A second model was loaded. Model 2 consisted of the same 7 correlated factors but with the item "I enjoy a wide variety of food" excluded. It showed slightly better model fit (Table 4).

Table 4: Indicators of fit in confirmatory factor analysis

Model	Chi-square	Degrees of freedom	Probability level	NFI	TLI	CFI	RMSEA	RMSEA low	RMSEA high
Model 1 (no item is removed)	807.27	379	.00	.83	.89	.90	.07	.06	.07
Model 2 (1 item is removed)	742.88	354	.00	.84	.90	.91	.06	.06	.07

The result of the confirmatory factor analysis was compared with the one of the original study that included 8 separate scales (with Hunger scale included) (Hunot et al., 2011) and with the study on the Australian sample that included 7 scales (with Hunger scale removed) (Mallan et al., 2017). Based on the available data, indicators of fit of the current study are closer to the Australian sample study results.

Table 5: Comparison of model fit indicators with UK and Australian sample

Model	NFI	CFI	RMSEA
Model from the original UK study including 8 separate scales (Hunot et al., 2011)	.88	.90	.058
Model from the Australian study including 7 scales, Hunger scale removed (Mallan et al., 2017)	n.d.	.91	.058
Model from the Bulgarian study including 7 scales, Hunger scale removed	.84	.91	.060

Reliability

Reliability estimates are presented in table 5. Cronbach's values for all scales are $>.70$ except 2 scales with a value of .69 (Food Responsiveness and Satiety Response).

Table 6: Internal reliability for the AEBQ based on Cronbach’s alpha

Scales	Cronbach’s alpha
Enjoyment of food	.77
Emotional over-eating	.93
Emotional under-eating	.94
Food fussiness	.80
Food responsiveness	.69
Slowness in eating	.85
Satiety response	.69

Associations between subscales and with BMI

A normality test showed that the scales values are not normally distributed. Therefore, Spearman’s rho measure was used to determine correlations between the scales (Table 6). As theoretically expected, small positive correlations were observed between the food approach subscales and between the food avoidance subscales, and small negative correlations were observed between the different scales.

Table 7: Correlations between the AEBQ subscales (N=268)

	Food Scales		Approach	Food Avoidance Scales			
	EF	FR	EOE	EUE	FF	SE	SR
Food Approach Scales							
EF	1	-.28**	.18**	-.14*	-.28**	-.16*	-.27**
FR		1	.32**	-.13*	-.07	-.13*	-.20**
EOE			1	-.49**	-.04	-.09	-.15*
Food Avoidance Scales							
EUE				1	.06	.04	.33**
FF					1	-.00	.19**
SE						1	.38**
SR							1

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

The correlations are estimated with Spearman’s rho measure.

Correlations between the scales and BMI were also calculated. Table 7 shows the results. There are small positive correlations between the Emotional Overeating scale and BMI. There are small negative correlations between BMI and Emotional Undereating and BMI and Satiety Response. No associations were found between the rest of the scales and BMI.

Table 8: Correlations between AEBQ scales and BMI

	Food Approach Scales			Food Avoidance Scales			
	EF	FR	EOE	EUE	FF	SE	SR
BMI	-.04	-.02	.19**	-.21**	.06	-.11	-.14*

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Discussion

The aim of this preliminary study was to examine the psychometric properties of the AEBQ for a Bulgarian sample including evaluation of the factor structure and examination of the associations between the food approach and food avoidance appetitive traits with body mass index. The hunger scale was removed and the questionnaire included 30 items. The EFA revealed 7 scales as the original ones from the study of Hunot (2016). The results from the CFA provided support for the 7-factor structure. Better model fit was obtained when the Food Fussiness item "I enjoy a wide variety of food" was excluded.

The general pattern of associations is similar to the one of the original article and the validation of the Australian sample (Mallan et al., 2017). Small positive associations were observed between the food approach subscales and between the food avoidance subscales, and both scales were negatively correlated with each other. There were, however, some exceptions. A small negative correlation between the Food Responsiveness and Enjoyment of food scale was observed - a finding that was not observed in the other two validation papers and should be further researched. The Food Fussiness scale was negatively correlated with the Enjoyment of Food scale, which indicated that picky eating is related to food avoidance traits. This finding could support previous findings about picky eating as a relatively stable individual difference from early childhood to young adulthood (Kauer, 2015) and above.

As hypothesized, there were small positive correlations between the Emotional Overeating scale and BMI, small negative correlations between BMI and the Emotional Undereating scale, and small negative correlations between BMI and Satiety Response. In contrast to the original study, the Enjoyment of Food, Food Responsiveness and Slowness in Eating scales did not show a significant association with BMI. Both food responsiveness and enjoyment of food scales have been consistently positively associated with BMI in children (Webber et al., 2009) and confirmed in adults (Hunot et al., 2016). The reason for the discrepancy in the Bulgarian sample could be the small sample size, the self-reported BMI and also cultural differences in the samples.

Limitations

There are number of limitations to be considered. The first one is the small sample size. Another one is the use of one sample for both exploratory and confirmatory factor analysis. In order to test the model fit of the exploratory analysis, a second different sample should ideally be used. Calculations of association between scales and BMI were done without controlling for age and gender, which could lead to different results. Furthermore, the self-reported weight and height could be misleading and distorting the data. Finally, due to the fact that some small adaptations in the Bulgarian version are made and not a literal translation, examination of the nomological network of the instrument should be conducted (Vijver & Poortinga, 2005). This includes examination of correlation between the Bulgarian version of AEBQ with other measures of eating behaviours in Bulgarian.

Conclusion

The Bulgarian translation of the Adult Eating Behaviour Questionnaire has acceptable psychometric properties, and hence could be considered a reliable and valid instrument for measuring appetitive traits in adults. This self-report instrument is easy-to-use, inexpensive and useful in detecting behaviours that increase obesity risk.

References

- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246.
- Field, A. (2013). *Discovering Statistics using IBM SPSS Statistics*. Sage Publication, Thousand Oaks, CA.
- Hu, L., Bentler, M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives, *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Hunot, C., Fildes, A., Croker, H., Llewellyn, C., Wardle, J., Beeken, R. (2016). Appetitive traits and relationships with BMI in adults: development of the adult eating behaviour questionnaire, *Appetite*, 105, 356–363.
- Hutcheson, G., Sofroniou, N. (1999) *The Multivariate Social Scientist: Introductory Statistics Using Generalized Linear Models*. Sage Publication, Thousand Oaks, CA.
- Kauer, J., Pelchat, M., Rozin, P., Zickgraf, H. (2015). Adult picky eating. Phenomenology, taste sensitivity, and psychological correlates, *Appetite*, 90, 219-228.
- Llewellyn, C., van Jaarsveld, H., Johnson, L., Carnell, S., Wardle, J. (2011). Development and factor structure of the Baby Eating Behaviour Questionnaire in the Gemini cohort, *Appetite*, 57.2, 388-396.

- Llewellyn, C. & Wardle, J. (2015). Behavioral susceptibility to obesity: Gene–environment interplay in the development of weight, *Physiology & Behavior*, 152, 494-501.
- Llewellyn, C., Fildes, A. (2017). Behavioural Susceptibility Theory: Professor Jane Wardle and the Role of Appetite in Genetic Risk of Obesity, *Current Obesity Reports*, Volume 6, Issue 1, 38-45. Retrieved August 18, 2018 from <https://link.springer.com/article/10.1007/s13679-017-0247-x>
- Mallan, K., Fildes, A., Garcia, X., Drzezdzon, J., Sampson, M., Llewellyn, C. (2017). Appetitive traits associated with higher and lower body mass index: evaluating the validity of the adult eating behaviour questionnaire in an Australian sample, *The international journal of behavioral nutrition and physical activity*, 14, 130.
- Matsunaga, M. (2010). How to Factor-Analyze Your Data Right: Do's, Don'ts, and How-To's, *International Journal of Psychological Research*, Vol. 2. No. 1.
- Sahoo, K., Sahoo, B., Choudhury, A., Sofi, N., Kumar, R., Bhadoria, A. (2015). Childhood obesity: causes and consequences, *Journal of family medicine and primary care*, 4, 187-192.
- Stunkard, J., Messick, S. (1985). The three-factor eating questionnaire to measure dietary restraint, disinhibition and hunger, *Journal of psychosomatic research*, 29, 71-83.
- Tucker, L., Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis *Psychometrika*, 38(1), 1-10.
- Van Strien, T., Frijters, J., Bergers, G., Defares, P. (1986). The Dutch eating behavior questionnaire (DEBQ) for assessment of restrained, emotional, and external eating behavior, *International journal of eating disorders*, 5(2), 295-315.
- Viana, V., Sinde, S., Saxton J. (2008). Children's Eating Behaviour Questionnaire: associations with BMI in Portuguese children. *British Journal of Nutrition*, 100(2):445–50.
- Vijer, F., Poortinga, Yp. (2005). Conceptual and Methodological Issues in Adapting Tests. Retrieved April 25, 2019 from https://www.researchgate.net/publication/235660908_Conceptual_and_methodological_issues_in_adapting_tests
- Wardle, J., Guthrie, C., Sanderson, S., Rapoport, L. (2001). Development of the Children's Eating Behaviour Questionnaire, *Journal of Child Psychology and Psychiatry*, 42, 963-970.
- Nguyen, D. & El-Serag, H. (2010). The epidemiology of obesity, *Gastroenterology clinics of North America*, 39, 1-7.
- Webber, L., Hill, C., Saxton, J., Jaarsveld, C., Wardle, J. (2009). Eating Behaviour and Weight in Children, *International journal of obesity*, 33, 21-28.
- World Health Organization (2018). *Obesity and overweight*. Retrieved August 20, 2018 from <http://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>

Velina Hristova²*Sofia University "St. Kliment Ohridski"*

PSIHOMETRIJSKE KARAKTERISTIKE BUGARSKE VERZIJE UPITNIKA ADULT EATING BEHAVIOUR

Sažetak

The Adult Eating Behaviour Questionnaire je sveobuhvatna samoizveštavajuća mera apetitivnih osobina, a koja obuhvata nekoliko načina ishrane koji su povezani sa telesnom težinom kod odraslih. Cilj ove preliminarne studije bio je testiranje validnosti i pouzdanosti Upitnika Adult Eating Behaviour (AEBK) na bugarskom uzorku. Uzorak se sastojao od 267 osoba iz Bugarske (67% žena i 33% muškaraca) koji su popunili bugarsku verziju AEBK zajedno sa podacima o sociodemografskim karakteristikama, telesnoj težini i visini. Konstruktivna validnost procenjena je eksplorativnom faktorskom analizom (EFA) sa uklonjenom skalom gladi, a pouzdanost je procenjena Cronbachovim alfa koeficijentom. EFA je otkrila 7 skala za bugarski uzorak koje su iste kao i one koje su teoretski očekivane: uživanje u hrani, emocionalno prekomerno jedenje, emocionalno nedovoljno jedenje, užurbanost u hrani, odzivnost na hranu, sporost u jelu, zadovoljavanje reakcija na sitost. Pouzdanost je bila dobra - Cronbahova alfa između .70 - .90. Za ispitivanje 7-faktorskog modela korišćena je i konfirmativna faktorska analiza (CFA). CFA je otkrila koreliranu strukturu sedam faktora kao model koji je sličan onome u originalnom upitniku. Takođe su utvrđene korelacije između skala i BMI (na osnovu podataka o težini i visini). Studija podržava upotrebu AEBK na bugarskom uzorku kao validnog i pouzdanog alata za procenu prehambenog ponašanja kod odraslih.

Ključne reči prehrambeno ponašanje, apetitivne osobine, psihologija ishrane, psihometrija, BMI

² Corresponding author vel.hristova@gmail.com

PERSONAL AND HISTORICAL NOSTALGIA – DIFFERENCES IN EMOTIONAL RESONANCE²

Abstract

The aim of this research was to examine the differences between Personal and Historical Nostalgia when it comes to the four dimensions of emotion expression (intensity, pleasure, complexity, and arousal).

Personal Nostalgia represents the kind of nostalgia that refers to the sense of longing for a particular period of the individual's life, while Historical Nostalgia refers to the sense of longing for the past that the individual did not personally experience (Marchegiani & Phau, 2010).

The research was conducted on a pilot sample consisting of 85 students of psychology. Five audio-visual stimuli were used to induce Personal and Historical Nostalgia. The four dimensions of emotion expression were measured by the self-report (one question on a semantic differential scale by each dimension).

The results showed that statistically significant differences on three out of four dimension are higher in the Personal Nostalgia: intensity ($t(78)=10.40$; $p=0.000$), pleasure ($t(78)=8.31$; $p=0.000$) and arousal ($t(78)=2.33$; $p=0.023$), while on the dimension the complexity, statistically significant differences are higher in the Historical Nostalgia ($t(78)=-2.15$; $p=0.035$).

The higher intensity of Personal Nostalgia is in accordance with the theoretical assumption that Personal Nostalgia is more intense than the historical one (Marchegiani & Phau, 2010). Respondents find Personal Nostalgia more pleasant than Historical Nostalgia. On the other hand, the average of reactions of respondents, for the stimuli inducing Historical Nostalgia, indicates a more neutral reaction when it comes to the dimension pleasant/unpleasant. Personal Nostalgia is also characterized by a higher level of arousal. The fact that respondents consider Historical Nostalgia as more complex emotion than Personal Nostalgia corresponds with the definitions of these two types of nostalgia.

The hypothesis that Personal Nostalgia has higher intensity, higher arousal, higher pleasantness, and lower complexity than Historical Nostalgia, is fully confirmed.

Key words: Personal Nostalgia, Historical Nostalgia, the dimension of emotions

¹ corresponding author miodrag.milenovic@filfak.ni.ac.rs

² Research was conducted within the project NV 183/1-16-9-01: Applied psychology in the function of quality of life of individual in the community, financed by Faculty of Philosophy in the University of Nis.

Nostalgia

History and definition

The word "Nostalgia" was mentioned for the first time in the "Dissertatio Medica de Nostalgia oder Heimweh" by Johannes Hofer on June 22nd, 1688th, in Basel (Fuentenebro & Valiente, 2014).

The word "Nostalgia" consists of two Greek's words: *nóstos* (νόστος) meaning "homecoming" and *álgos* (άλγος), meaning "pain" or "ache".

Hofer had used the word "Nostalgia" to illustrate "the state of moral decay resulting from forced separation, when an individual is being separated from the social and geographical environment of his childhood and youth" (Fuentenebro & Valiente, 2014).

Firstly, Nostalgia was a medical term (Dahl, 2016). It was considered a mental illness, with a somatic basis located deep in cerebral fibers, in which the idea of homeland is rooted.

The "Golden Age" of Nostalgia was in the 18th and 19th century (Bolzinger & Bouillault, 1990).

Nostalgia epidemics have caused mass desertification of soldiers who fought far away from their homeland and in that time the first scientific papers on this disease appeared. In that time, 1803rd, the first doctorate thesis on the subject of Nostalgia was also published in France (Bolzinger, 2003).

In the period of Romanticism, and mostly thanks to Jean-Jacques Rousseau, there was a change in the meaning of the word Nostalgia. For romantics, Nostalgia became suffering associated with memory, and the clinical meaning attributed to it was replaced by its association with imagination (Bolzinger, 1989; Fuentenebro & Valiente, 2014).

Nowadays, in Psychology, Nostalgia is defined as a "longing for the past" <?>, often idealized, and instead of the suffering and general weakness of the organism. According to Davis (1979), nostalgia is a "positively toned evocation of a lived past". Nostalgia is mainly (but not exclusively) associated with pleasant emotions, coupled with the autobiographical memories (Davis, 1979; Wildschut, Sedikides, Arndt, & Routledge, 2006). In this paper, we will adhere to the definition of nostalgia given by Davis (1979). Nostalgia is also associated with the time perspective positive past and with neuroticism (Milenović, Jović, i Milićević, 2017; Routledge, 2015). In the context of the dimensions of the emotion, Nostalgia is pleasant, intensive and stimulating emotion (Matsunaga et al., 2011).

Personal and Historical Nostalgia

Personal Nostalgia refers to the longing for a certain period of the individual's life - the period from his personal past (Marchegiani & Phau, 2010). Personal Nostalgia is closely related to the cognitive psychology concept of autobiographical memories.

Autobiographical memories are content that can be accommodated in time and space, which relate to personal experience (Kostić, 2010).

On the other side, Historical Nostalgia refers to the longing for the past which individual did not have in his own autobiographical memory and which he did not personally experience. Unlike Personal Nostalgia, in which feelings always relate to an event from a personal past, Historical Nostalgia is far more complicated. Historical Nostalgia can refer to the time periods before the individual was born. Historical Nostalgia has a lower intensity than Personal Nostalgia (Marchegiani & Phau, 2010). Historical Nostalgia is based on the theory of collective memory (Marchegiani & Phau, 2010). The term "Collective memory" refers to how groups remember their past (Roediger & DeSoto, 2016).

Dimensions of Emotion

Krech and Crutchfield (1973), from gestalt point of view, wrote that every emotion or most of the emotions consists of four dimensions:

1. Intensity – ranging from the low intensity to the high intensity.
2. Arousal – refers to the degree of activity that the emotion brings. The emotions can be "calm", "passive" or "active".
3. Pleasure/Valence – refers to the extent to which the emotions are pleasant or unpleasant.
4. Complexity – refers to the extent to which emotions contain a variety of different feelings. The emotions can be very complex ("indescribable") or very simple.

Previous studies

Sedikides, Wildschut, and Baden (2004) regard nostalgia as an emotion which is, above all, pleasant, with the remnants of bitterness or sorrow. Nostalgia is one of the more complex emotions.

Nostalgia is characterized by pleasantness, intensity and increased level of arousal. In addition, although it is a seemingly "quiet" emotion, at a physiological level Nostalgia is characterized by increased conductivity of the skin (an indicator of physiological arousal of the organism) as well as with a decrease in the number of heartbeats in the unit of time (Matsunaga et al., 2011). Historical Nostalgia is thought to have a lower intensity than Personal Nostalgia (Marchegiani & Phau, 2010).

The aim of this research was to examine the differences between Personal and Historical Nostalgia when it comes to the four dimensions of emotion expression. Comparing Personal and Historical Nostalgia to four dimensions of emotions is important not only to determine the differences between them in these dimensions but also to "map" the Personal and Historical Nostalgia to these four dimensions.

Based on the previously discussed research, there is a hypothesis that Personal Nostalgia has higher intensity, higher arousal, higher pleasantness, and lower complexity than Historical Nostalgia.

Sample

The research was conducted on a pilot sample consisting of 85 students of psychology (M=12, F=73; M=20.13, SD=0.34).

Instruments

Every dimension of emotion was operationalized through one question on a semantic differential scale.

1. Intensity – Low intensity (0)/High intensity (10)
2. Arousal – Calming (0)/Stimulating (10)
3. Pleasure/Valence – Unpleasant (0)/Pleasant (10)
4. Complexity – Simple (0)/Complex (10)

Stimuli and procedure

Five audio-visual stimuli were used to induce personal and Historical Nostalgia.

Personal Nostalgia stimulus:

- Song from the TV show “Srećni ljudi”,
- Child song “Kad si srećan”,
- Song from the TV show “Rubi”,
- Introduction theme from “Dnevnik 2” and
- Song from the animated cartoon “Meda u velikoj plavoj kući”.

Historical Nostalgia stimulus:

- Audio clip “Sounds of the Earth”,
- Audio clip 135. a Psalm,
- Audio clip of the song “Sini jarko Sunce sa Kosova”,
- The song “Tamo daleko” and
- The song “Hej Sloveni”.

Duration of each stimulus was two minutes.

After seeing each stimulus, respondents answered in which degree they experienced different dimensions of emotions while watching those stimuli.

Stimuli aimed at causing Personal Nostalgia was selected by, firstly, making a list of potential stimuli, i.e. stimulus causing nostalgic feelings in subjects aged 20 years. After that, and then on a sample of one hundred students of the first year of psychology, we asked those students to list the domestic series they most often watched in their childhood, the foreign series they most often watched in their childhood, the cartoon they most often watched, and the children’s song they most often listened to in their childhood. On this sample, it was found that stimuli

mentioned above were most often chosen by the students, and pilot testing showed that they really led to nostalgic feelings.

Given that Historical Nostalgia, by definition, refers to periods in which the respondents did not live, stimuli which can awake associations to different historical periods were chosen in order to induce this kind of nostalgia. The first video which was shown was the one with sounds of the earth (birds, jungles, water ...) followed by the images of the jungle, which aims to potentially induce that kind of Historical Nostalgia that relates to the very beginning of the human civilization. The second stimulus was an audio of spiritual music (135 Psalm) followed by the image of the "White Angel", and referring to the period of establishment of the Serbian Orthodox Church, the time of Nemanjić dynasty and, in general, the period of the Middle Ages in which the Church had a strong influence. Next stimulus was related to Kosovo and Metohija, it was the song "Sini jarko Sunce sa Kosova". Through the song "Tamo daleko", the period of World War I, as well as the period in which Serbia was a Kingdom, was represented. Finally, the historical period from 1945th to the fall of communism was represented by the anthem of the former SFRY "Hej Sloveni" as a stimulus.

Method of control of the stimuli

One half of the respondents watched the stimuli in the order in which they were mentioned above (first Historical Nostalgia in the order: a, b, c, d, e, then Personal Nostalgia in the order: a, b, c, d, e), while the other half the respondents watched the stimuli in reverse order (Personal Nostalgia: e, d, c, b, a; Historical Nostalgia: e, d, c, b, a).

Results

The results showed that there are statistically significant differences between Personal and Historical Nostalgia on all four dimensions of emotion. Level of the Intensity, Pleasure, and Arousal are higher in Personal Nostalgia, while the level of the Complexity is higher in the Historical Nostalgia. The results are shown in table 1 below.

Table 1 - Differences between Personal and Historical Nostalgia in the level of dimensions of emotion

Dimension of emotion	Mean (I) Personal Nostalgia	Mean (J) Historical Nostalgia	Mean difference (I - J)	SD	t	df	p
Intensity	6.14	3.90	2.24	1.92	10.40	78	.000**
Pleasure	7.30	5.58	1.73	1.85	8.31	78	.000**
Arousal	5.68	5.25	0.43	1.63	2.33	78	.023*
Complexity	4.51	4.95	-0.43	1.79	-2.15	78	.035*

* Statistically significant on the level of .05

** Statistically significant on the level of .01

The results show that there are statistically significant differences between Personal and Historical Nostalgia on all four dimensions of emotion. Level of the Intensity, Pleasure, and Arousal are higher in Personal Nostalgia, while the level of the Complexity is higher in the Historical Nostalgia. Differences between Personal and Historical Nostalgia is statistically significant on the level of .01 on Intensity and Pleasure. Differences between Personal and Historical Nostalgia is statistically significant on the level of .05 on the Arousal and Complexity.

Discussion

The aim of this research was to examine the differences between Personal and Historical Nostalgia when it comes to the four dimensions of emotion expression (intensity, pleasure, complexity, and arousal). Based on the previously discussed research, there is a hypothesis that Personal Nostalgia has higher intensity, higher arousal, higher pleasantness, and lower complexity than Historical Nostalgia. The hypothesis is confirmed in its entirety.

The higher intensity of Personal Nostalgia is in accordance with the theoretical assumption that Personal Nostalgia is more intense than the historical one (Marchegiani & Phau, 2010). Personal Nostalgia is also characterized by a higher level of arousal. These data are consistent with the findings that Personal Nostalgia is characterized by the pleasantness and with the connection with pleasant autobiographical memories (Matsunaga et al., 2011). Personal Nostalgia can be considered more exciting because it is more closely related to the personality of the respondent. Respondents find Personal Nostalgia more

pleasant than Historical Nostalgia. On the other hand, the average reactions of respondents, for the stimuli inducing Historical Nostalgia, indicate a more neutral reaction when it comes to the dimension pleasant/unpleasant.

The lower level of pleasantness on Historical Nostalgia could be a consequence of the fact that historical periods of our country onto which we divided this type of nostalgia, in order to operationalize it, are related to both positive and negative events. This connection with both positive and negative events also applies to the stimuli we used to induce Historical Nostalgia in this research. When we take into account previous said, lower pleasantness on Historical Nostalgia can be accounted for.

The song "Hej Sloveni" can be associated with the good life standard and higher quality of life, but this song can also be associated with the persecution, the suppression of freedom of speech, and the suppression of religious beliefs, too. This song can be associated even with wars and inflation in SFRY during the last decade of the 20th century.

The song "Tamo daleko" refers to the time of the First World War, which can be associated with the feeling of pride, because the Serbian nation showed what dignity and love for the Fatherland mean, in that war, but at the same time our country lost a third of the population, and that period can awake pleasant and unpleasant feelings at the same time.

Due to the interweaving of the past and the present, there is a particularly complex situation regarding the song "Sini jarko Sunce sa Kosova". A special study can be carried out on the basis of associations that this topic awakes in individuals, especially in younger generations. The complexity of this topic could be best described by a statement of one respondent, who stated that she experiences negative emotions from this stimulus, but not because of Kosovo and Metohia at itself, but rather because the politicians potentiate historical events too much, and abuse this topic in political purposes and for their own gain.

If we take into account the above, the ambivalent feelings towards this, but also other historical stimuli, seem more meaningful. All previously stated explains the greater expression of the degree of complexity in Historical Nostalgia. Unlike Personal Nostalgia, in which feelings always relate to an event from a personal past, Historical Nostalgia is far more complicated. It consists of a series of different historical periods, the periods themselves consist of various events, and each of them can be connected with pleasant and unpleasant feelings.

Conclusion

In the context of the four dimensions of the emotion expression, it can be concluded that Personal Nostalgia is complex, intensive, very pleasant and medium stimulating emotion. On the other hand, Historical Nostalgia is a complex emotion with low intensity, on the border between pleasant and unpleasant, and

on the border between calm and stimulating. Intensity, arousal and valence/pleasantness are higher in Personal Nostalgia, while the dimension of complexity is higher in Historical Nostalgia.

When it comes to the limitations of this research, the first one is a number of stimuli. So, for further studies, we suggest the inclusion of more stimuli, in order to better operationalize Historical Nostalgia, through more historical periods. Moreover, it is necessary to choose stimuli for which there is very little probability that they were seen by the respondents.

In this research, we have used songs that relate to certain historical periods, but we can hardly be sure whether the reaction of the respondents is a consequence of Historical Nostalgia or incitement to given songs in itself. Therefore, in one of the following studies, it is necessary to select stimuli for which it is unlikely that they can induce a certain emotional reaction by themselves.

It would be interesting to conduct similar research on different samples. For example, it would be interesting to examine differences in four dimensions of the emotions between Personal and Historical Nostalgia in older respondents. Also, it would be useful to repeat this research on a larger sample.

References

- Bolzinger, A. (1989). Jalons pour une histoire de la nostalgie. *Bulletin de Psychologie*, 42(389): 310–321.
- Bolzinger, A. (2003). Il y a deux cents ans, première thèse parisienne sur la nostalgie. *L'Évolution Psychiatrique*, 68, 97–107.
- Bolzinger, A. & Bouillault, J. P. (1990). La nostalgie dans les thèses de médecine de 1820 à 1830. *L'Évolution Psychiatrique*, 55: 619–631
- Davis, F. (1979). *Yearning for Yesterday: A Sociology of Nostalgia*. New York: Free Press.
- Fuentenebro, F. D. & Valiente, C. O. (2014). Nostalgia: a conceptual history. *History of Psychiatry*, 25(4): 404-411.
- Kostić, A. (2010). *Kognitivna psihologija*. Beograd: Zavod za udžbenike.
- Kreč, D. & Krečfild, R. (1973). *Elementi psihologije*. Beograd: Naučna knjiga.
- Marchegiani, C. & Phau, I. (2010). Away from 'Unified Nostalgia': Conceptual Differences of Personal and Historical Nostalgia Appeals in Advertising. *Journal of Promotion Management*, 16(1-2): 80-95.
- Matsunaga, M., Isowa, T., Yamakawa, K., Kawanishi, Y., Tsuboi, H., Kaneko, H., Sadato, N., Oshida, A., Katayama, A., Kashiwagi, M. & Ohira, H. (2011). Psychological and physiological responses to odor-evoked autobiographic memory. *Activitas Nervosa Superior Rediviva*, 53(3): 114-120.
- Milenović, M., Jović, M. & Milićević, N. (2017). Nostalgija - neurotičan pogled ka prošlosti? *Current trends in Psychology 2017*, pp 170. Novi Sad: Filozofski fakultet.
- Oxford dictionaries. Preuzeto 23. juna 2018. godine sa: <https://en.oxforddictionaries.com/definition/nostalgia>

- Roediger, H. L., & DeSoto, K. A. (2016). *The Power of Collective Memory*. Scientific American. Preuzeto 17. avgusta 2018. godine sa: <https://www.scientificamerican.com/article/the-power-of-collective-memory/>
- Routledge, C. (2015). *Nostalgia: A Psychological Resource*. New York: Psychology Press – T&F.
- Sedikides, C., Wildschut, T., & Baden, D. (2004). Nostalgia: Conceptual issues and existential functions. In J. Greenberg, S. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 200-214). New York, NY: Guilford Press.
- Wildschut, T., Sedikides, C., Arndt, J. & Routledge, C. (2006). Nostalgia: content, triggers, functions. *Journal of Personality and Social Psychology*, 91(5): 975-993.

Miodrag Milenović

Miljan Jović³

Univerzitet u Nišu, Filozofski fakultet

LIČNA I ISTORIJSKA NOSTALGIJA - RAZLIKE U EMOCIONALNOJ REZONANCI

Sažetak

Cilj ovog istraživanja bio je ispitati razlike između lične i istorijske nostalgije kada je reč o četiri dimenzije izražavanja emocija (intenzitet, zadovoljstvo, složenost i uzbuđenje). Lična nostalgija predstavlja vrstu nostalgije koja se odnosi na osećaj čežnje za određenim periodom života pojedinca, dok se istorijska nostalgija odnosi na osećaj čežnje za prošlošću koji pojedinac nije lično doživeo (Marchegiani i Phau, 2010). Istraživanje je sprovedeno na pilot uzorku koji je činilo 85 studenata psihologije. Pet audio-vizuelnih stimulusa korišćeno je za izazivanje lične i istorijske nostalgije. Četiri dimenzije izražavanja emocija merene su samoizveštavanjem (jedno pitanje na skali semantičkog diferencijala za svaku dimenziju). Rezultati su pokazali da su statistički značajne razlike u tri od četiri dimenzije veće kod lične nostalgije: intenzitet ($t(78) = 10,40; p = 0,000$), zadovoljstvo ($t(78) = 8,31; p = 0,000$) i uzbuđenje ($t(78) = 2,33; p = 0,023$), dok su u dimenziji kompleksnost statistički značajne razlike veće u Istorijskoj nostalgiji ($t(78) = -2,15; p = 0,035$). Veći intenzitet lične nostalgije je u skladu sa teorijskom pretpostavkom da je lična nostalgija intenzivnija od istorijske (Marchegiani i Phau, 2010). Ispitanici smatraju da je Lična nostalgija ugodnija od istorijske nostalgije. S druge strane, prosek reakcija ispitanika na stimulse koji izazivaju Istorijsku nostalgiju ukazuje na neutralniju reakciju kada je u pitanju dimenzija prijatno / neprijatno. Ličnu nostalgiju karakteriše i viši nivo uzbuđenja. Činjenica da ispitanici smatraju istorijsku nostalgiju složenijom emocijom od lične nostalgije odgovara definicijama ove dve vrste nostalgije. Hipoteza da lična nostalgija ima veći intenzitet, veće uzbuđenje, veću prijatnost i nižu složenost od istorijske nostalgije u potpunosti je potvrđena.

Ključne reči: Lična nostalgija, Istorijska nostalgija, dimenzija emocija

³ corresponding author miodrag.milenovic@filfak.ni.ac.rs

INDIVIDUAL DIFFERENCES IN TIME PERSPECTIVE IN BULGARIAN SOCIO-CULTURAL CONTEXT

Abstract

This paper presents data from a study, aiming to adapt and validate to Bulgarian socio-cultural context one of the commonly used questionnaires measuring psychological time perspective – the Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999). Time perspective is crucial to our present and future plans, to the way we act in the present, and also functions as an individual-differences variable. Categorizing our experiences into past, present and future temporal frames helps us lend order, coherence and meaning to these events. The sample consisted of 205 participants (66% females; age range: 18-65 years; $M=27$, $SD=12$). Results from the confirmatory factor analysis have confirmed the five-factor structure of the questionnaire. Convergent and divergent validity are shown by correlations with various psychological constructs tested in the original study of Zimbardo and Boyd. Present-Hedonistic factor correlated with novelty seeking, and aggression. The Future factor inversely correlated with depression, physical aggression, harm avoidance, and novelty seeking. Past-Positive also correlated negatively with depression and anxiety. Present-Fatalistic factor was associated with preference for consistency, depression, and anxiety. The overall pattern of data emerging from the research provides evidence for the relevance of the questionnaire as a measure of the psychological construct of time perspective.

Key words: Time Perspective, Zimbardo Time Perspective Inventory, Bulgarian population

Introduction

Time perspective is a fundamental dimension of the psychological construction of time that refers to the subjective experience of individuals with the past, present, and future. According to Lennings, time perspective is crucial to our present and future plans, to the way we see ourselves, and to the way we act in the present (Lennings, 2000).

Zimbardo's conceptual model of time perspective (Zimbardo & Boyd, 1999) is based upon the Lewinian theory. Lewin (1951) was among the first researchers who emphasized the importance of time perspective in social science and claimed that behaviour, emotion and motivation are profoundly influenced by time perspective.

¹ Corresponding author radina.stoyanova@gmail.com

Time perspective theory (Zimbardo & Boyd, 1999) assumes that our self-image, our world view and our interpersonal relations are influenced by cognitive processes related to time perspective. Temporal perspective is an unconscious process in which temporal categories, or time frames, play a fundamental role in the relationship between personal and social experiences that help us give meaning and order to everyday life events. The three time frames (past, present, future) are used for the purpose of encoding, storing and recalling experiences as well as in forming expectations, goals, contingencies and imaginative scenarios.

According to Zimbardo, time perspectives influence our judgements, decisions, and actions. The dominant influence for some comes from the past, from recalling prior situations, with memory of the costs and benefits of those decisions in a nostalgic and positive or traumatic, aversive, or negative way. Others are influenced by anticipations and expectations that extend the present into a future, creating alternative goals, impediments and challenges related to inconsistency with reality. Time perspective bias develop when one of the time frames in making decisions is habitually overemphasized.

The Zimbardo Time Perspective Inventory was developed by Zimbardo and Boyd (1999) as a self-reported questionnaire consisting of 56 items. The time perspective biases, or time frames, that emerge from factor analysis of the ZTPI are: a negative orientation toward the past that reflects a generally negative, aversive view of the past, a hedonistic orientation to the present, associated with a hedonistic, risk-taking attitude toward time and life, a future orientation that reflects a general attitude to the future, a positive orientation to the past that reflects a warm, sentimental attitude toward the past, and a fatalistic orientation to the present that reveals a fatalistic, helpless, and hopeless attitude toward the future and life.

Most of the previously used questionnaires measuring time perspective focused only on a single dimension. The Consideration of Future Consequences Scale (Strathman et al., 1994), Sensation Seeking Scale (Zuckerman, 1994), The Future Anxiety Scale (Zaleski, 1996), and Preference for Consistency Scale (Cialdini et al., 1995) are among the most commonly used. These unidimensional scales failed to provide a valid measure of individual time perspective profiles. The Zimbardo Time Perspective Inventory aims to overcome the shortcomings of the existing scales.

Representing a comprehensive measure of time perspective, the inventory has been validated with various populations. In the Brazilian adaptation of the ZTPI (Milfont et al., 2008) the five-factor structure provided acceptable fit to the data compared to other models. The French version of the scale (Apostolidis & Fieulaine, 2004) also revealed an analogous factor structure with the principal validation of original version. The Swedish version of the Zimbardo Time Perspective Inventory supported both the original five-factor solution and an extended version of the model by including a Future-Negative scale as an independent factor (Carelli et al., 2011).

Supporting the convergent and discriminant validity of the ZTPI, various studies confirmed different time perspectives to be related to many established psychological constructs. The negative rumination is found to be associated with depression (Lyubomirski & Nolen-Hoeksema, 1995). The Past-Negative time orientation is associated with depression, anxiety and unhappiness (Zimbardo & Boyd, 1999; van Beek et al., 2010; Anagnostopoulos & Griva, 2012). According to Destmyter & De Raedt (2012) older persons with Past-Negative perspective were more likely to experience negative affect and depressiveness. Griffin and Wildbur (2013) also reported positive correlations between Past-Negative and Present-Fatalistic factors and anxiety. Zimbardo & Boyd (1999) revealed a strong relationship between Past-Negative and Present-Fatalistic time perspectives and aggression.

Objective

The aim of the research was to establish the psychometric properties of the Zimbardo Time Perspective Inventory in Bulgarian population. The validity and reliability of the Bulgarian version of the ZTPI were tested as well as the relations of different time perspectives to some fundamental psychological constructs such as depression, anxiety, and aggression, supporting the convergent and discriminant validity of the scale.

Method

Participants

A total of 205 Bulgarian participants completed the study, aged between 18 and 65, most of them were university students ($M=27$, $SD=12$). Women were 66% and men – 34%. Regarding age, the sample was divided into two groups considering that the half of the sample were aged below 22 years old. The first group ranged between 18 and 21 years, represented 53% of the participants, the second (from 22 to 65 years) consisted of 47% of the sample. About 43% of the sample possessed a higher educational degree, 57% completed secondary education.

Design and Procedure

The survey was conducted via online platform in 2018. Participants were able to fill out the questions completely confidentially. The purpose of the study was presented and how the collected data will be used. The participants were informed that pressing “send” at the end of the questionnaire will be accepted as a demonstration of informed consent. Age, gender and educational level were considered as independent variables and different time orientations were considered as dependent variables.

Instruments

The study was conducted by means of a battery of questionnaires, most of them included in the original study of Philip Zimbardo and John Boyd (1999) establishing the convergent and discriminant validity of the Zimbardo Time Perspective Inventory.

Time Perspective. Time perspective was measured through the Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999). The inventory was developed by Philip G. Zimbardo and John N. Boyd from Stanford University and was published in 1999. ZTPI is a self-reported test made up of 56 items in the form of statements, which uses a 5-point Likert scale ranging from *Very uncharacteristic (1)* to *Very characteristic (5)*. The five factor structured inventory measures multiple time perspectives as individual temporal profiles and investigates orientation towards Past-Negative ($\alpha = .82$), Past-Positive ($\alpha = .80$), Present-Fatalistic ($\alpha = .74$), Present-Hedonistic ($\alpha = .79$) and Future time perspectives ($\alpha = .77$). The questionnaire was translated to Bulgarian by two independent translators and the discrepancies between the translations were discussed and resolved.

Preference for Consistency Scale was used in Zimbardo's original study supporting the validity of the developed inventory. Preference for Consistency Scale (Cialdini, Trost, and Newsom, 1995) is an 18-item scale that measures a tendency to base one's responses to incoming stimuli on the implications of previous expectations and choices. Low scores demonstrate a preference for change and unpredictability in the response to social stimuli, and high scores are related to a greater value of personal consistency. The instrument uses a 9-point scale ranging from *Strongly disagree (1)* to *Strongly agree (9)*.

Cloninger's **Tridimensional Personality Questionnaire** (1987) is a self-report inventory designed to assess Novelty Seeking, Harm Avoidance, and Reward Dependence, the three primary dimensions of his Biosocial Learning Model of personality. The short-form version of the questionnaire includes 44 items (true/false statements), all of them were translated into Bulgarian. The Novelty Seeking scale measures a tendency to be attracted to unfamiliar stimuli. The Harm Avoidance scale measures the tendency to avoid punishment. The Reward Dependence scale is conceptually similar with delay of gratification and measures extreme sensitivity to rewards and social approval.

Depression was measured through the Zung Self-Rating Depression Scale (1965). The scale was designed by Duke University psychiatrist William Zung, MD to assess the level of depression. The scale is a 20-item self-administered test with a 4-point ordinal scale ranging from *Little or none of the time (1)*, *Some of the time (2)*, *A large part of the time (3)*, to *Most or all of the time (4)*. In the original study Zimbardo and Boyd have used Beck Depression Inventory (Beck et al., 1961) to assess the degree of negative cognitions associated with depression. In the current study the decision this inventory to be replaced with the Zung Self-Rating Depression Scale was made on the base of the fewer number of items and the scoring considered more suitable for the research.

Anxiety was measured through Spielberger's State-Trait Anxiety Inventory. STAI is a commonly used measure of trait and state anxiety (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). The present research used the trait version, which measures relatively stable individual differences between people in their tendency to respond with anxiety to situations perceived as threatening. All items are rated on a 4-point scale ranging from *Almost never (1)*, *Sometimes (2)*, *Often (3)* to *Almost always (4)*. The inventory was adapted to Bulgarian population by Paspalanov & Stytinski in 1989.

Aggression was measured through the Buss and Perry Aggression Questionnaire, also used in Zimbardo's original study. The questionnaire (1992) contains four subscales that measure physical aggression, verbal aggression, anger and hostility, using a 5-point Likert scale ranging from *Extremely uncharacteristic of me (1)* to *Extremely characteristic of me (5)*. The scale has 29 items, subdivided in four factors.

Statistical analyses were conducted with IBM SPSS v.22, using Descriptive statistics, Confirmatory factor analysis, One-way ANOVA, and Correlational analysis.

Results

Confirmatory factor analysis was performed via maximum-likelihood estimation and varimax rotation with Kaiser normalization on the items of the Bulgarian version of Zimbardo Time Perspective Inventory. Reliability was assessed by Cronbach's alpha coefficient. The model tested was based on the Zimbardo five latent time perspective constructs.

The Kaiser-Meyer-Olkin measure of sampling adequacy was .74, above the recommended value of .60. (Kaiser, 1974). Bartlett's test of sphericity was significant ($\chi^2 = 4,643.41$, $p < .001$). All items except three had significant relationship with latent factor on which they were expected to load, and all but two items had a standardized loading above .30 (see Table 1). Item 12 loaded at .26 and Item 56 loaded at -.24. These items were retained because their absence would not significantly alter the factor structure. Item 17 (I try to live my life as fully as possible, one day at a time) and Item 28 (I feel that is more important to enjoy what you're doing than to get work done on time) in the Bulgarian version of ZTPI loaded on the Future factor. In contrast, they loaded to a higher extent on the Present-Hedonistic factor in the original version despite they also possess loadings above .30 on the Present-Hedonistic factor. A possible explanation for these results may be the fact that the sample was represented mostly by university students. Item 4 (I often think of what I should have done differently in my life) loaded on the Present-Fatalistic factor in the Bulgarian version. In comparison, in the original version loaded on the Past-Negative factor.

Table 1. Varimax-Rotated Factor Matrix

ZPTI item	Past-Negative	Present-Hedonistic	Future	Past-Positive	Present-Fatalistic
50	.83				
16	.79				
34	.74				
4	.65				
54	.65				
27	.60				
25	.60				
36	.53				
22	.50				
33	.50				
42		.74			
31		.69			
46		.68			
26		.62			
55		.59			
19		.49			
32		.48			
8		.48			
48		.47			
23		.46			
1		.44			
44		.44			
52		.35			
12		.26			
40			.74		
6			.66		
21			.64		
13			.63		
43			.60		
10			.51		
17			.49		
9			-.46		
45			.45		
24			-.45		
30			.47		
51			.43		

28	-36	
18	.32	
56	-.24	
7		.63
2		.62
29		.56
11		.54
15		.54
20		.47
41	-.45	
49	.43	
5	.42	
39		.73
38		.72
14		.71
4		.55
37		.55
47		.50
35		.45
53		.45

Note. Numbers of the items in the table represent those of the original version of the scale.

Psychometric indicators obtained by the implementation of the questionnaire in Bulgarian socio-cultural context showed high reliability, giving us reason to use the measure in subsequent studies (see Table 2).

Table 2. Descriptive Statistics for the Five ZPTI Factors

	n	Eigenvalue	Variance explained	M (SD)	Cronbach's α
Past-Negative	10	4.91	8.8	3.06 (.77)	.80
Present-Hedonistic	14	4.68	8.4	3.48 (.57)	.77
Future	15	4.46	8.5	3.58 (.60)	.76
Past-Positive	9	3.43	6.13	3.39 (.72)	.82
Present-Fatalistic	8	4.19	7.5	2.57 (.72)	.79

Significant demographic differences were proven through One-way ANOVA. There were significant gender differences concerning the Past-Positive dimension ($F=3.849, p<.05$). Women scored higher than men ($M_w = 3.46, SD_w = .72; M_m = 3.25, SD_m = .69$). These results could be linked to women's warmer and sentimental attitude toward family traditions, rituals, and memories. Age is a significant factor

regarding the hedonistic orientation to the present ($F=6.944$, $p<.01$). The first group of participants up to 21 years showed higher scores compared to the group aged over 21 years (M up to 21= 3.58, SD up to 21= .57; M over 21= 3.37, SD over 21= .55). The results are taking into consideration that younger age is related to greater levels of pleasure-seeking behavior, risk taking, and living for the moment. Educational degree had a significant effect on the fatalistic orientation to the present that involves beliefs of insufficient personal control over situations and environment ($F=7,845$, $P<.01$). Respondents with higher educational degree scored above those with secondary education ($M_h = 2.73$, $SD_h = .76$; $M_s = 2.44$, $SD_s = .67$).

Evidence of convergent validity comes from support of the hypotheses relating various established psychological constructs to each of the five subscales of the ZTPI. Evidence of divergent or discriminant validity proposes that different time perspectives would not be associated with psychological constructs correlated on the base of convergent validity.

Table 3. presents correlations between the time perspective questionnaire, preference for consistency, and the three scales of Cloninger's personality questionnaire. Preference for consistency construct was positively associated with Past-Negative, Future, Past-Positive, Present-Fatalistic scales. Preference for consistency reveals a tendency to base our behavior on the implications of previous expectations and choices. Even stronger relation between the Future orientation and the preference for consistency was reported in the original study. Zimbardo did not find relations between the positive orientation to the past and preference for consistency, yet such an association was revealed in Bulgarian population. These results are not curious regarding the positive appraisals of the past that are typical to the Past-Positive orientation. Finally, the Present-Fatalistic orientation was positively related to the preference for consistency scale, which means people with fatalistic view of the present, also restrain themselves from new and novel responses to situations.

Table 3. Correlations between Time Perspective Scales, Preference for Consistency and Cloninger's Personality Questionnaire Scales

	Preference for Consistency	Harm Avoidance	Reward Dependence	Novelty Seeking
Past-Negative	.195**	.000	-.024	-.210**
Present-Hedonistic	-.057	-.219**	-.082	-.361**
Future	.406**	-.187**	-.001	-.165*
Past-Positive	.186**	-.094	-.026	.002
Present-Fatalistic	.163*	-.051	-.119	-.116

*Sig. at 0.05, **Sig. at 0.01

According to the results from the correlation analysis of time perspective questionnaire and the scales of Clonninger’s personality questionnaire, some significant relations were found only with the Harm Avoidance and Novelty Seeking scales. Harm Avoidance was inversely correlated with Present-Hedonistic and Future scales. These results showed that hedonistic orientation to present and general future orientation were related to lower levels of avoiding harm and punishment behavior. The Novelty Seeking scale was found to be negatively associated with Past-Negative, Present-Hedonistic, and Future scales. That means the lower levels of exploratory behavior and attraction to new stimuli are more typical to people with negative view of the past, orientation toward the pleasures of the moment or eagerness to achieve goals in the future. These results were supported with Zimbardo’s findings in the original study.

Table 4. presents results of the correlation analysis between time perspective scales and psychological constructs of depression and anxiety.

Table 4. Correlations between Time Perspective Scales, Depression, and Anxiety

	Depression	Trait Anxiety
Past-Negative	.528**	.645**
Present-Hedonistic	-.053	-.027
Future	-.173*	-.069
Past-Positive	-.238**	-.184**
Present-Fatalistic	.190**	.147*

*Sig. at 0.05, **Sig. at 0.01

Some of the measured temporal profiles were predicted to be associated most of all with the constructs of depression and anxiety. Past-Negative factor as predicted correlated with depression and trait anxiety. Even stronger correlations were reported in the original study. Based on the results, it is obvious that predominance of the negative orientation toward the past is related to higher scores of the depression and anxiety scales. Present-Hedonistic factor revealed no significant correlations with depression and anxiety. In contrast, the future orientation toward goals and achievements was inversely correlated with depression but was not related to anxiety. The same negative relation to depression and anxiety showed the positive orientation to the past. This orientation is associated with a nostalgic and positive view of the past and presents the opposite tendency of the Past-Negative orientation. The last scale, Present-Fatalistic, was positively associated both with depression and anxiety. Data confirmed that prevalence of this fatalistic view to life predicts higher levels of depression and anxiety.

Table 5. Correlations between Time Perspective and Aggression Scales

	Physical Aggression	Verbal Aggression	Anger	Hostility	Aggression Total
Past-Negative	.218**	.243**	.308**	.536**	.441**
Present-Hedonistic	.195**	.150*	.349**	.112	.266**
Future	-.186**	.029	-.028	-.041	-.086
Past-Positive	-.136	-.115	.012	-.018	-.089
Present-Fatalistic	.156*	.036	.232**	.287**	.244**

*Sig. at 0.05, **Sig. at 0.01

As presented in Table 5., the negative orientation toward the past was positively associated with all the aggression subscales and with aggression in general. So, having a negative view of the past is an indicator of increased aggressive behavior. Hostility as an aspect of aggressive behavior was in the strongest relationship with the negative past orientation, which means Past-Negative temporal profile is related to a large extent with the hostile attitude. The relationship between the present hedonistic orientation with most of the aggression scales, except Hostility, was found to be positive. Bulgarian population showed the Present-Hedonistic factor to be positively associated with Physical Aggression, Verbal Aggression, Anger, and Aggression. These results revealed an interesting view of the living for the day, risk taking, pleasure and sensation-seeking present orientation as correlated with all aggressive scales that are related to impulsivity. The Future factor was found to be inversely correlated with Physical Aggression. The positive orientation to the past was not related to any aspect of the aggressive behavior and attitude. Logically, its opposition to the Past-Negative factor should lead to negative association to all the behaviors typical to the negative past orientation. Zimbardo's results showed a significant negative correlation between this factor and aggression, but these results were not supported in Bulgarian population. Another expected result was the positive relations of the Present-Fatalistic orientation with most of the aggression scales. The strong belief that future is predicted and uninfluenced by individual actions correlated significantly with Physical Aggression, Anger, Hostility, and Aggression.

Discussion

Results of the conducted in Bulgarian population study have confirmed the five-factor structure of the Zimbardo Time Perspective Inventory. The overall pattern of data emerging from the research provides evidence for the relevance of the questionnaire as a measure of the psychological construct of time perspective and supports the use of the Zimbardo Time Perspective Inventory among Bulgarian sample.

Some reliable gender differences were revealed in the study. Women showed higher scores concerning the positive orientation toward the past. These results reflect the fact that our culture and social norms place women as keepers of home comfort and important figures of transferring traditional values to the next generation that are typical to Bulgarian cultural environment. Analysis of age differences in time perspective profiles revealed that in Bulgarian socio-cultural context the younger age (up to 21 years) is more related to the hedonistic view of the present, seeking of pleasure and risk-taking behavior. These results reflect the predominantly hedonistic orientation of the young people. Regarding these results it should be taken into consideration that about 50% of the sample consisted of university students. Findings of Mello & Worrell (2006) supported that older adolescents report more hedonistic attitudes and turn to pleasure seeking and living in the moment. The results are consistent with prior research showing that adolescents emphasize the present time dimension more than past and future (Bowles, 1999). Educational degree significantly differentiated the sample regarding the fatalistic orientation to the past. Data revealed that people with higher degree possessed more fatalistic view toward the present and their personal ability to influence the events. These people willingly give control in the hands of fate and believe that their efforts could not change the course of the events. Such results are confusing regarding the common opinion that education is related to more clear and precise view of the present. Similar research showed people with secondary degree associated with low socioeconomic status tend to show more fatalistic attitude than graduate (D'Alessio et al., 2003). Results in Bulgarian sample showed a completely opposite trend that could be related to the unpredictable nature of the socio-economic environment in Bulgaria in the past decades.

Data have shown time perspective profiles to be related in significant ways to many fundamental psychological constructs, e.g. depression, anxiety, and aggression. The construct of preference for consistency was positively associated with all temporal profiles, except the Present-Hedonistic. The strongest relation of the construct was with the future orientation, which could be interpreted as a wish prior behavior to be coherent to important goals set in the future so the process of achievement to be more fluent. Harm Avoidance scale was inversely correlated with Present-Hedonistic and Future scales. These results showed either living for the moment or living for important goals and achievements in the future were related to lower levels of shy, pessimistic, and avoiding punishment behavior. On the other hand, the Novelty Seeking scale was negatively associated with Past-Negative, Present-Hedonistic, and Future scales.

Previous research revealed that negative rumination is associated with depression, anxiety and unhappiness (Lyubomirski & Nolen-Hoeksema, 1995). Our study supported these results proving the negative orientation to the past to be significantly and strongly associated with depression and anxiety. This is reasonable since past negative oriented people are trapped into the negative feelings of the past. Future orientation, on the other hand, was inversely

correlated with depression. It is nothing new that effective goal setting and purpose in life are among the predictors of lower levels of depression (Dickson & Macleod, 2004). Negative relations with depression and anxiety were found with the positive orientation to the past. As predicted, the fatalistic view of the present was positively associated with both depression and anxiety as a trait, which is plausible when taking into consideration that such an orientation is related to hopelessness and feelings of inability to have influence over life events. This temporal profile is typical to people with the feeling that their lives were externally controlled, and everything is in the hands of fate. Similar results were revealed by Anagnostopoulos and Griva (2012) who found that the Past-Negative and the Present-Fatalistic orientations were positively related to depression and anxiety. Results confirmed that the orientation toward present enjoyment and pleasure have no relation to depressive and anxiety states or personality traits.

Hostility, one of the aggression scales, showed the strongest relationship with the negative past orientation. This result corresponds with the pessimistic, negative and aversive attitude toward the past as a characteristic of this time perspective typology. An unexpected finding was the relationship between the present hedonistic orientation with most of the aggression scales, except Hostility. Such results were not cited in the original study. Future scores were negatively associated with behaviors that might endanger future goals and achievements such as aggression. Zimbardo's results showed a significant negative correlation between this factor and aggression, but these results were not supported in Bulgarian population. Another result that was expected regarding Zimbardo's findings was the positive relation of the Present-Fatalistic orientation with most of the aggression scales. The fatalistic view of life as a part of fate's plot with no relation to personal abilities is relevant to aggressive behavior. Even stronger correlations were cited in the original study.

Psychometric indicators obtained in the study support the use of the Zimbardo Time Perspective Inventory in Bulgarian sample as a valid and reliable tool for assessing time perspective among adults.

References

- Anagnostopoulos, F., & Griva, F. (2012). Exploring Time Perspective in Greek Young Adults: Validation of the Zimbardo Time Perspective Inventory (ZTPI) and Relationships with Mental Health Indicators. *Social Indicators Research, 10*, 49–59.
- Buss, A. & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology, 63*, 452-459.
- Carstensen, L., Isaacowitz, D. & Charles, S. (1999). Taking Time Seriously. *American Psychologist, 54*, 165-181.
- Cialdini, R., Trost, M., & Newsom, J. (1995). Preference for Consistency: The Development of a Valid Measure and the Discovery of Surprising Behavioral Implications. *Journal of Personality and Social Psychology, 69*, 318–328.

- Cloninger, R. (1987) A Systematic Method for Clinical Description and Classification of Personality Variants. *Archives of General Psychiatry*, 44, 573-588.
- D'Alessio, M., Guarino, A., De Pascalis, V., & Zimbardo, P. (2003). Testing Zimbardo's Stanford Time Perspective Inventory (STPI) -Short Form. *Time & Society - TIME SOC.* 12.
- Desmyter, F. & De Raedt, R. (2012). The Relationship Between Time Perspective and Subjective Well-being of Older Adults. *Psychologica Belgica*. 52. 19. 10.5334/pb-52-1-19.
- Dickson J., & MacLeod A. (2004). Approach and Avoidance Goals and Plans: Their Relationship to Anxiety and Depression. *Cognitive Therapy and Research*, 28: 415–432.
- John, O., & Srivastava, S. (1999). The Big-Five Trait Maxonomy: History, Measurement, and Theoretical Perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of Personality: Theory and Research* (Vol. 2, pp. 102–138). New York: Guilford Press.
- Kaiser, H. (1974). An Index of Factorial Simplicity. *Psychometrika*, 39, 31-36.
- Lennings, J. (2000). Optimism, Satisfaction and Time Perspective in the Elderly. *The International Journal of Aging and Human Development*, 51(3), 167–181.
- Milfont, T.**, Andrade, T., Belo, R., & Pessoa, V. (2008). Testing Zimbardo Time Perspective Inventory in a Brazilian Sample. *Interamerican Journal of Psychology*, 42, 49-58.
- Paspalanov, I., & Stytsinski, D. (1989). Methodical Tool for Working with the Bulgarian Form of the Questionnaire for Assessing the Anxiety of C. Spielberger. Sofia: BAS Institute of Psychology, 1989.
- Rosenberg, M. (1965). *Society and the Adolescent Self-image*. Princeton, NJ: Princeton University Press.
- Spielberger, C., Gorsuch, R., Lushene, R., Vagg, P., & Jacobs, G. (1983). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Stratham, A., Gleicher, F., Boninger, D. & Edwards, C. (1994) The Consideration of Future Consequences: Weighing Immediate and Distant Outcomes of Behaviour, *Journal of Personality and Abnormal Psychology* 66: 742–52.
- Suddendorf, T., Addis, D., & Corballis, M. (2009). Mental Time Travel and the Shaping of the Human Mind. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*. 364. 1317-24.
- Worrell, F., & Mello, Z. (2007). Reliability and Validity of Zimbardo Time Perspective Inventory Scores in Academically talented adolescents. *Educational and Psychological Measurement*, 67, 487-504.
- Zaleski, Z. (1996). Future Anxiety: Concept Measurement and Preliminary Research. *Personality and Individual Differences*, 21, 165-174.
- Zimbardo, P. & Boyd, J. (1999). Putting Time in Perspective: A Valid, Reliable Individual Differences Metric. *Journal of Personality and Social Psychology*, 77, 1271-1288.
- Zuckerman, M. (1994). *Behavioral Expressions and Biosocial Bases of Sensation Seeking*. New York: Cambridge University Press.
- Zung, W. (1965) A Self-rating Depression Scale. *Archives of General Psychiatry*. 12: 63–70.

Radina Stoyanova²

Sonya Karabeliova

Sofia University "St. Kliment Ohridski"

INDIVIDUALNE RAZLIKE U VREMENSKOJ PERSPEKTIVI U BUGARSKOM SOCIO – KULTURALNOM KONTEKSTU

Sažetak

Ovaj rad prikazuje podatke iz studije čiji je cilj adaptacija i validacija u bugarsko socijalno-kulturnom kontekstu jednog od najčešće korišćenih upitnika koji meri psihološku vremensku perspektivu – Zimbardov inventar vremenskih perspektiva (Zimbardo i Boid, 1999). Vremenska perspektiva je presudna za naše sadašnje i buduće planove, za način na koji delujemo u sadašnjosti i takođe funkcionise kao varijabla individualnih razlika. Kategorizacija naših iskustava u prošle, sadašnje i buduće vremenske okvire pomaže nam da uspostavimo red, koherenciju i značenje u ovim događajima. Uzorak se sastojao od 205 učesnika (66% žena; starosni raspon: 18-65 godina; $M = 27$, $SD = 12$). Rezultati konfirmatorne faktorske analize potvrdili su petofaktorsku strukturu upitnika. Konvergentna i divergentna valjanost vide se iz korelacija sa različitim psihološkim konstruktima testiranim u originalnoj studiji Zimbarda i Boyd-a. Faktor hedonističke sadašnjosti je u korelaciji sa traženjem noviteta i agresijom. Faktor budućnosti obrnuto je povezan sa depresijom, fizičkom agresijom, izbegavanjem povreda i traženjem novina. Pozitivna prošlost takođe je negativno povezana sa depresijom i anksioznošću. Faktor fatalističke sadašnjosti bio je povezan sa sklonošću doslednosti, depresiji i anksioznosti. Ukupni obrazac podataka koji proizlaze iz istraživanja pruža dokaz važnosti upitnika kao mere psihološke konstrukcije vremenske perspektive

Ključne reči: Vremenske perspektive, Zimbardov inventar vremenskih perspektiva, bugarska populacija

² Corresponding author radina.stoyanova@gmail.com

CZECH AND SLOVAK DIFFERENCES OF COMPASSION AND SELF-COMPASSION – QUALITATIVE RESEARCH ANALYSIS OF THE FREE ASSOCIATIONS²

Abstract

So far, little is known about cross-cultural differences in how people of different cultures perceive compassion and self-compassion. Also, the use of qualitative methodology in the study of these phenomena is scarce. Therefore, we analyzed differences in the first three associations for compassion and self-compassion between participants from Czech (96) and Slovak (151) republic. We provided qualitative research with one member of a core team and one auditor. For Slovak as well as Czech students of psychology the most frequent domain for compassion and for self-compassion was the Emotional aspect. The findings of our study showed that Slovak and Czech participants see compassion as mainly comprising of empathy, emotions of love, sadness and remorse, cognitive understanding, behavioral displays of help, physical and mental closeness. For Slovaks, compassion is directed mainly towards close people as family and friends and then to vulnerable people. However, in Czech sample, compassion is directed mainly towards vulnerable people, and then to all the people in general and at the end to close people, family and friends. Compassion occurs in situations of either loss or any other kind of suffering. In Czech sample, there were much more associations with situations of disease. Slovak and Czech participants see self-compassion primarily in terms of positive emotions of love, negative emotions of sadness and remorse, cognitive understanding, behavioral displays of help and favor to self. Self-compassion occurs for them mainly in situation of inner suffering or externally from difficult and painful situations. Though, in Slovak sample, self-compassion was more tied to emotions of unhappiness, and calmness, and providing self-support and self-assurance. While in Czech sample, self-compassion was more allied to cognitive balancing and providing self-care. Generally, the results of qualitative analysis of Czech and Slovak associations with compassion and self-compassion were very similar.

Keywords: compassion, cross-cultural, free associations, self-compassion

¹ Corresponding author martina.barankova11@gmail.com

² Writing this work was supported by the Vedecká grantová agentúra VEGA under Grant 1/0578/15 and 1/0075/19; and Granty UK under Grant UK/329/2018 and Grant UK/190/2019

Introduction

Slovaks and Czechs shared part of their history and also their languages are very similar. Therefore we were interested whether Czechs and Slovaks also have similar free associations for word stimulus compassion and self-compassion. From the linguistic point of view, Czechs and Slovaks have also very similar terms for compassion (soucit/súcit) and self-compassion (sebesoucit/sebasúcit). Meaning of these terms is often confused with another similar phenomena, for example empathy, pity or sadness (Cartwright, 1988; Frazer, 2006; Haidt & Keltner, 1999). Gladkova (2010) in her linguistic analysis declare differences found between using of similar words compassion, sympathy and empathy in English language and in their Russian equivalents.

From the previous studies conducted on the Slovak sample (Baránková, Halamová, & Koróniová, 2018; Halamová, Baránková, Strnádelová, & Koróniová, 2019), 5 domains arose from the associations for the word compassion (emotional aspect, behavioural aspect, evaluative aspect, cognitive aspect and biological aspect) and 5 domains for the word self-compassion (emotional aspect, behavioural aspect, evaluative aspect, cognitive aspect and situational aspect). Domains arose from the data obtained asking participants what are their associations with words compassion and self-compassion. These categories agree with the theoretical approach of Strauss et al. (2016, p. 19), who understand the concept of compassion as multidimensional construct made up from 5 elements: "1) Recognising suffering, 2) Understanding the universality of suffering in the human experience, 3) Feeling empathy for the person suffering and connecting with the distress (emotional resonance), 4) Tolerating uncomfortable feelings aroused in response to the suffering person (e.g., distress, anger, fear), so remaining open to and accepting of the person suffering, and 5) Motivation to act/acting to alleviate suffering." Elements created by Strauss et al. (ibid.) meet the criteria for emotional, cognitive and behavioural aspects. Halamová et al. (2019) in their research added evaluative and biological aspect of compassion and evaluative and situational aspect for self-compassion. In their research (Halamová et al., 2018; Baránková, Halamová, & Koróniová, 2019), the most frequently mentioned meaning of compassion was associated with emotional aspect.

Ekman (e.g. 1993, 1999) is well-known for his theory of universal emotions. Affected by this theory of basic emotion, many authors perceive compassion as an emotional state (Goetz et al., 2010; Haidt, 2003) or as having an emotional aspect. Other authors perceive compassion as a kind of love (Sprecher and Fehr, 2005), or as a motivational and behavioural state (Gilbert et al., 2017).

Compassion and self-compassion are important in the area of mental and physical health (MacBeth & Gumley, 2012), therefore it is crucial to know, how people perceive their nature and if this perception is consistent across different samples.

Aim

The aim of the current study was to explore word associations for stimuli words compassion and self-compassion and compare free associations between Slovak and Czech samples, according the categorization from previous studies (Baránková, Halamová, & Koróniová, 2018; Halamová, Baránková, Strnádelová, & Koróniová, 2019)

Methods

Measures

Online questionnaire with sociodemographical questions and following questions was used: "without censoring, please write down the first three associations when you see the word compassion/ self-compassion."

Sample

151 Slovak participants with mean age 22,2 (SD 4,4). 37 of participants were men. 96 Czech participants with mean age 22,4 (SD 2,0). 16 of participants were men. Slovak as well as Czech participants were university students of psychology because we assumed that they have better skills of mentalisation, greater experience of psychological constructs and in their future work they will require an understanding of subjective human experiences.

Data analyses

We used the results of the previous Consensual qualitative research (CQR) (Hill, 2012) analysis on Slovak free associations for compassion and self-compassion (Halamová,et al., 2018) as a framework for analysis of Czech data and subsequent comparisons. The main purpose of the CQR is to reach consensus on categorization of qualitative data by multiple researchers to validate final categorization by their agreement. A researcher in our analysis tried to assign data from Czech sample to the previously created categorization if data fitted. In case data did not fit, the new category was created. Afterwards an auditor checked the analysis. The auditor's comments were incorporated and final categorization was completed upon consensus between the researcher and the auditor.

Results

Consensual qualitative analysis of 2 researchers (1 core team member and 1 auditor) was conducted. There were together 1230 coded statements. 640 statements for free associations with compassion (382 Slovak sample; 258 Czech sample) and 590 statements for self-compassion (336 Slovak sample; 254 Czech sample).

The coded statements for Slovak sample were included in 5 domains, 12 subdomains, 12 categories or 21 characteristics which were created for compassion or 5 domains, 12 subdomains, 17 categories, or 14 characteristics for self-compassion. While in previous research, data were categorised under the 5 domains, 12 subdomains, 12 categories and 21 characteristics which were created for compassion or under the 5 domains, 12 subdomains, 17 categories and 14 characteristics created for self-compassion (Halamová et al., 2018). This was the basis for analysis in the current study.

The most frequently represented domain for *compassion* in Slovak ($f = 187$; 48.95%) and also Czech sample ($f = 102$; 35.54%) was *Emotional aspect of compassion*. The domain *Behavioural aspect of compassion* was on the second place in the terms of frequency in Slovak sample ($f = 83$; 21.73%) and in the third place in Czech sample ($f = 50$; 19.38%). In the Slovak sample ($f = 59$; 15.44%) *Biological aspect of compassion* was on the third place in frequency and in the Czech sample ($f = 77$; 29.85%) on the second place. *Cognitive aspect of compassion* was on the fourth place identically in Slovak sample ($f = 44$; 11.52%) and in the Czech sample ($f = 15$; 5.81%). *Evaluative aspect of compassion* was on the last place in frequency in Slovak sample ($f = 9$; 2.36%) and also in the Czech sample ($f = 11$; 4.26%). For the comparison of frequencies in each compassion domain in Slovak sample, see Chart 1, for Czech sample, see Chart 2.

The most frequent domain for *self-compassion* in the Slovak sample ($f = 166$; 49.4%) and also in the Czech sample ($f = 92$; 36.22%) was *Emotional aspect of self-compassion*. The second most frequent domain in the Slovak sample was *Behavioural aspect of self-compassion* ($f = 52$; 15.48%) and in the Czech sample this aspect took third place ($f = 42$; 16.54%). *Evaluative aspect of self-compassion* was on the third place in Slovak sample ($f = 52$; 15.48%) and on the second place in Czech sample ($f = 60$; 23.62%). *Cognitive aspect of self-compassion* was on the fourth place in Slovak sample ($f = 34$; 10.12%) and on the last, fifth place, in Czech sample ($f = 29$; 11.42%). The last domain in the Slovak sample was *Situational aspect of self-compassion* ($f = 32$; 9.52%). For the Czech sample it was the fourth most frequent domain ($f = 30$; 11.81%). For the comparison of frequencies in each self-compassion domain in Slovak sample, see Chart 3, for Czech sample, see Chart 4.

The comparison of the free associations categorization for compassion in Slovak and Czech sample is presented in Table 1, comparison for word self-compassion is presented in Table 2. In the tables, complex hierarchical categorization consisted of the main **domains**, subdomains, *categories* and characteristics created from participants associations by researchers could be found. In the case of characteristics belonging to the category *Specific emotions*, signs + and – are related to the valence of concrete emotions. The frequencies of the domains, subdomains, categories and characteristics are listed in the table.

Compassion Slovak sample

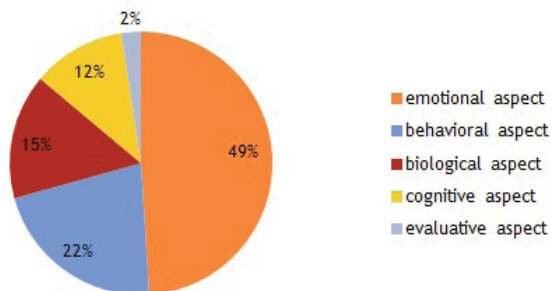


Chart 1. Percentage of each domain for the word compassion in Slovak sample

Compassion Czech sample

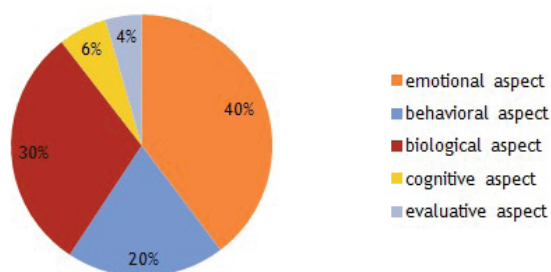


Chart 2. Percentage of each domain for the word compassion in Czech sample

Self-compassion Slovak sample

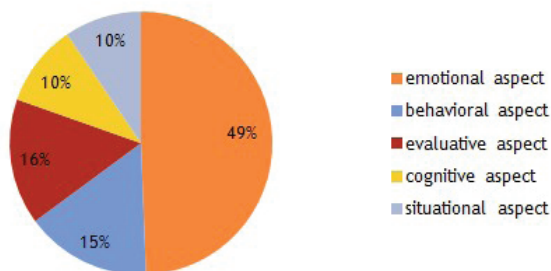


Chart 3. Percentage of each domain for the word self-compassion in Slovak sample

Self-compassion Czech sample

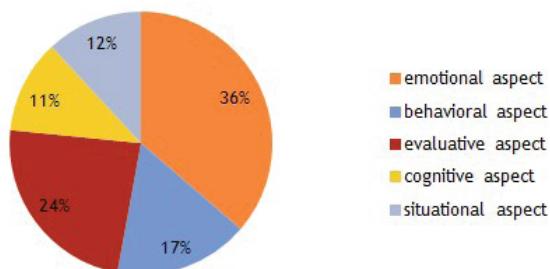


Chart 4. Percentage of each domain for the word self-compassion in Czech sample

Table 1. Categorization of the free associations for compassion in Slovak and Czech sample

Compassion 640	
Slovak sample 382	Czech sample 258
<p>Emotional aspect of compassion 187</p> <ul style="list-style-type: none"> <u>Empathy 71</u> Word empathy 54 Empathy towards others 17 <u>Emotions 116</u> Synonyms of emotions 8 Specific emotions 108 <ul style="list-style-type: none"> + Love 26 + Happiness 7 - Sadness 22 - Remorse 34 	<p>Emotional aspect of compassion 102</p> <ul style="list-style-type: none"> <u>Empathy 35</u> Word empathy 29 Empathy toward others 6 <u>Emotions 67</u> Synonyms of emotions 6 Specific emotions 61 <ul style="list-style-type: none"> + Love 19 + Compassion 2 + Other positive emotions 2 - Sadness 16 - Remorse 18 - Pain 5
<p>Cognitive aspect of compassion 44</p> <ul style="list-style-type: none"> <u>Understanding 44</u> General understanding 40 	<p>Cognitive aspect of compassion 15</p> <ul style="list-style-type: none"> <u>Understanding 15</u> General understanding 15
<p>Behavioural aspect of compassion 83</p> <ul style="list-style-type: none"> <u>Display of help 24</u> Help 18 Support 6 <u>Display of favour 54</u> Physical closeness 10 Mental closeness 44 Tenderness 17 Care 5 Goodness 7 Companionship 6 <u>Display of motivation 5</u> 	<p>Behavioural aspect of compassion 50</p> <ul style="list-style-type: none"> <u>Display of help 14</u> Help 11 Support 3 <u>Display of favour 35</u> Physical closeness 4 Mental closeness 31 Tenderness 7 Humanity 10 Companionship 4 Comfort 3 Recosiliation 1 Care 2 Goodness 4 <u>Display of motivation 1</u>

<p>Biological aspect of compassion 59 <u>People 50</u> <i>Types of compassionate relationships 27</i> Family and close ones 11 Vulnerable people 5 Friends 11 <i>Types of compassionate situations 23</i> Loss 8 General suffering 15 Disease 6 <u>Animals 8</u></p>	<p>Biological aspect of compassion 77 <u>People 72</u> <i>Types of compassionate relationships 38</i> Family and close ones 8 Helping professionals 2 People in general 10 Vulnerable people 12 Friends 6 <i>Types of compassionate situations 34</i> Loss 6 General suffering 12 Disease 12 Homelessness 4 <u>Animals 5</u></p>
<p>Evaluative aspect of compassion 9 <u>General evaluation 5</u></p>	<p>Evaluative aspect of compassion 11 <u>General evaluation 3</u> Evaluation of importance 8</p>

Table 2. Categorization of the free associations for self-compassion in Slovak and Czech sample

Self-compassion 590	
Slovak sample 336	Czech sample 254
<p>Emotional aspect of self-compassion 166 <u>Empathy towards self 10</u> <u>Emotions towards self 156</u> <i>Specific emotions 152</i> + Love 31 + Calmness 13 - Sadness 22 - Remorse 35 - Unhappiness 12 - Anger 6 - Vulnerability 8</p>	<p>Emotional aspect of self-compassion 92 <u>Empathy towards self 1</u> <u>Emotions towards self 91</u> <i>Synonyms of emotions 3</i> <i>Specific emotions 88</i> + Love 18 + Calmness 3 + Other positive emotions 2 - Sadness 17 - Remorse 29 - Unhappiness 2 - Powerlessness 8 - Pain 5 - Other negative emotions 4</p>
<p>Cognitive aspect of self-compassion 34 <u>Understanding 25</u> <i>General understanding 13</i> <i>Understanding of self 12</i> <u>Balancing 9</u></p>	<p>Cognitive aspect of self-compassion 29 <u>Understanding 15</u> <i>General understanding 7</i> <i>Understanding of self 8</i> <u>Balancing 14</u></p>
<p>Behavioural aspect of self-compassion 52 <u>Display of help towards self 6</u> <u>Display of favour towards self 46</u> <i>Self-forgiveness 6</i> <i>Self-support 10</i> <i>Self-care 6</i> <i>Self-assurance 11</i> <i>Self-acceptance 8</i></p>	<p>Behavioural aspect of self-compassion 42 <u>Display of help towards self 1</u> <u>Display of favour towards self 39</u> <i>Self-forgiveness 5</i> <i>Self-support 6</i> <i>Self-care 17</i> <i>Self-respect 4</i> <i>Self-assurance 1</i> <i>Self-acceptance 6</i> Displays of motivation 2</p>

<p>Situational aspect of self-compassion 32</p> <p><u>Types of external situations 9</u></p> <p><u>Types of internal situations 23</u></p> <p><i>Resulting from the inside 14</i></p> <p><i>Resulting from the interaction with others 9</i></p>	<p>Situational aspect of self-compassion 30</p> <p><u>Types of external situations 17</u></p> <p><u>Types of internal situations 13</u></p> <p><i>Resulting from the inside 6</i></p> <p><i>Resulting from the interaction with others 7</i></p>
<p>Evaluative aspect of self-compassion 52</p> <p><u>Misunderstanding 8</u></p> <p><u>Related to self 8</u></p> <p><u>Negative evaluation 19</u></p> <p><i>Misuse of self-compassion 14</i></p> <p><i>Uselessness of self-compassion 5</i></p> <p><u>Positive evaluation 17</u></p> <p><i>Connection with virtues 11</i></p> <p><i>Importance of self-compassion 6</i></p>	<p>Evaluative aspect of self-compassion 60</p> <p><u>Misunderstanding 7</u></p> <p><u>Related to self 11</u></p> <p><u>Negative evaluation 23</u></p> <p><i>Misuse of self-compassion 12</i></p> <p><i>Uselessness of self-compassion 11</i></p> <p><u>Positive evaluation 19</u></p> <p><i>Connection with virtues 9</i></p> <p><i>Importance of self-compassion 10</i></p>

Discussion

In current research were analysed Slovak and Czech associations for words compassion and self-compassion. Originally in Slovak and Czech language these words sound very similar (súcit/soucít and sebasúcit/sebesoucít). Also the associations were very similar with subtle specific differences. The same main domains arose from data in Czech and Slovak sample for compassion and self-compassion.

The results of qualitative analysis of Czech and Slovak associations showed that both perceive compassion and self-compassion quite similarly. For Slovak as well as Czech participants, the most frequent domain for compassion and for self-compassion was the *Emotional aspect*.

The findings of our study showed that Slovak and Czech participants see compassion as mainly comprising of empathy, emotions of love, sadness and remorse, cognitive understanding, behavioral displays of help, physical and mental closeness. In the domain of *Emotional aspect*, differences between samples are really subtle. Czech participants saw compassion, compared to Slovaks, also in the context of pain. In *Cognitive aspect*, both Czechs and Slovaks were consistent and their associations were categorized into the same subdomain (understanding) and category (general understanding) linked to understanding the others when feeling compassion. From the *Behavioural aspect*, the only difference arose from the data was more extensive categorization of manifestations associated with mental closeness in Czech sample. Humanity, comfort and reconciliation were characteristics typical for Czech sample. For Slovaks, compassion is directed mainly towards close people as family and friends and then to vulnerable people in *Biological aspect*. However, in Czech sample, compassion is directed mainly towards vulnerable people, and then to all the people in general and at the end to close people, family and friends. Compassion occurs in situations of either loss or any other kind of suffering. In Czech sample, there were much more associations with situations of disease. In *Evaluative aspect*, Czech participants compared to

Slovaks saw in the great manner also the benefits of compassion and evaluate compassion as important virtue.

Slovak and Czech participants see self-compassion primarily in terms of positive emotions of love, negative emotions of sadness and remorse, cognitive understanding, behavioral displays of help and favor to self from the point of view of *Emotional aspect*. Differences between samples were subtle and occurred in negative specific emotions. Accept sadness, remorse and unhappiness associated by both, Slovaks associated self-compassion also with anger and vulnerability and Czechs with powerlessness and pain. In *Cognitive aspect*, associations were included into the same categories and participants associated self-compassion mainly with general ability to understand the situation which is happening. Self-compassion occurs for participants mainly in situation of inner suffering (*Situational aspect*) or externally from difficult and painful situations. Though, in Slovak sample, self-compassion was more tied to emotions of unhappiness, and calmness, and providing self-support and self-assurance. While in Czech sample, self-compassion was more allied to cognitive balancing and providing self-care. In *Behavioural aspect*, Czech participants see self-compassion linked with self-respect and also with motivation. In both samples, polarity in *Evaluative aspect* was significant. Participants see evaluate self-compassion negatively in context of misuse of self-compassion or uselessness of self-compassion. They also evaluate self-compassion positively in the case of connection with virtues and because of its importance in life.

The main differences between Slovak and Czech sample in associations with compassion was seen in domain *Biological aspect*, subdomain People and category Types of compassionate relationships. In the associations with self-compassion, the most of differences was in domain *Behavioural aspect* of self-compassion and subdomain Display of favour towards self.

The categorization developed in previous research (Baránková, Halamová, & Koróniová, 2019; Halamová et al., 2018) for associations with compassion and self-compassion was valid also for the Czech sample and in current study, only subtle specific changes in whole categorization were found. Compassion and self-compassion both have similar qualities valid for self and for others.

Limitations

There were different sample sizes in Slovak and Czech sample. The research was conducted only with homogenous sample of psychology students, potentially better in understanding of psychological constructs such as compassion and self-compassion.

Further research

In further research exploring differences in associations and meanings of compassion and self-compassion in other countries would be beneficial. Also exploring differences between compassion and similar words as empathy, pity and sadness would shed the light on explanation of compassion.

Conclusion

Our results showed that data obtained from Slovak and Czech sample does not differ significantly in associations connected with stimuli words compassion and self-compassion. The same five domains arose in categorization in both analyzed samples for compassion: Emotional aspect, Behavioural aspect, Cognitive aspect, Biological aspect and Evaluative aspect. In associations with self-compassion, five same domains arose from both samples: Emotional aspect, Behavioural aspect, Cognitive aspect, Evaluative aspect and Situational aspect. Emotional aspect was in the both samples and also in both stimuli words the most frequently occurred category. Specific differences were found mainly in focusing on compassion. Slovak people associated compassion with close people and family while Czech respondents associated compassion mostly with vulnerable people, people in general and with family and close ones in the last place. In self-compassion there were differences seen in connection with emotions of unhappiness, calmness, and providing self-support and self-assurance in Slovak sample and more cognitive balancing and providing of self-care in Czech sample.

References

- Baránková, M., Halamová, J., & Koróniová, J. (2019). Non-expert views of compassion: consensual qualitative research using focus groups. *Human Affairs, 29*(1), 58-69.
- Cartwright, D. E. (1988). Schopenhauer's compassion and Nietzsche's pity. *Schopenhauer Jahrbuch, 69*, 557-567.
- Ekman, P. (1993). Facial expression of emotion. *American psychologist, 48*(4), 384-392.
- Ekman, P. (1999). Basic emotions. In: T. Dalgleish, & M. Power (Eds.). *Handbook of cognition and emotion* (45-60). New York: John Wiley & Sons Ltd .
- Ekman, P., & Keltner, D. (1997). Universal facial expressions of emotion: An old controversy and new findings. In U. C. Segerstråle & P. Molnár (Eds.), *Nonverbal communication: Where nature meets culture* (pp. 27-46). Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.
- Frazer, M. L. (2006). The compassion of Zarathustra: Nietzsche on sympathy and strength. *The review of politics, 68*(1), 49-78.
- Gilbert, P., Catarino, F., Duarte, C., Matos, M., Kolts, R., Stubbs, J., Ceresatto, L., Duarte, J., Pinto Gouveia, J., & Basran, J. (2017). The development of compassionate engagement and action scales for self and others. *Journal of Compassionate Health Care, 4*(4).
- Gladkova, A. (2010). Sympathy, compassion, and empathy in English and Russian: A linguistic and cultural analysis. *Culture & Psychology, 16*(2), 267-285.
- Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin, 136*(3), 351.
- Haidt, J. (2003). *The moral emotions*. Oxford: Oxford University Press

- Haidt, J., & Keltner, D. (1999). Culture and facial expression: Open-ended methods find more expressions and a gradient of recognition. *Cognition & Emotion*, 13(3), 225-266.
- Halamová, J., Baránková, M., Strnádelová, B., & Koróniová J. (2018). Consensual qualitative research on free associations for compassion and self-compassion. *Human Affairs*, 28(3), 253-270.
- Hill, C. E. (2012). *Consensual qualitative research: A practical resource for investigating social science phenomena*. American Psychological Association.
- MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review*, 32(6), 545-552.
- Sprecher, S., & Fehr, B. (2005). Compassionate love for close others and humanity. *Journal of Social and Personal Relationships*, 22(5), 629-651.
- Strauss, C., Taylor, B. L., Gu, J., Kuyken, W., Baer, R., Jones, F., & Cavanagh, K. (2016). What is compassion and how can we measure it? A review of definitions and measures. *Clinical Psychology Review*, 47, 15-27.

Martina Baránková³

Júlia Halamová

*Comenius University in Bratislava,
Institute of Applied Psychology,
Faculty of Social and Economic Sciences*

RAZLIKE IZMEĐU ČEHA I SLOVAKA U SAOSEĆANJU I SAMO-SAOSEĆANJU – KVALITATIVNA ANALIZA SLOBODNIH ASOCIJACIJA

Sažetak

Za sada se malo zna o kros kulturalnim razlikama u načinu na koji ljudi različitih kultura opažaju saosećanje i samo-saosećanje. Takođe, upotreba kvalitativne metodologije u proučavanju ovih fenomena je retka. Stoga smo analizirali razlike u prve tri asocijacije za saosećanje i samosaosećanje između učesnika iz Češke (96) i Slovačke (151) republike. Obezbedili smo kvalitativno istraživanje sa jednim članom osnovnog tima i jednim revizorom. Za studente psihologije iz Češke i Slovačke najčešći domen saosećanja i samo-saosećanja bio je Emocionalni aspekt. Rezultati naše studije pokazali su da slovački i češki učesnici saosećanje uglavnom vide kao sastavljenu od empatije, emocija ljubavi, tuge i kajanja, kognitivnog razumevanja, ispoljavanja pomoći kroz ponašanja, fizičke i mentalne bliskosti. Za Slovake je saosećanje usmereno uglavnom prema bliskim ljudima kao porodici i prijateljima, a zatim i prema ugroženim ljudima. Međutim, u češkom uzorku saosećanje je usmereno uglavnom prema ugroženim ljudima, a zatim i prema svim ljudima

³ Corresponding author martina.barankova11@gmail.com

uopšte, a na kraju i prema bliskim ljudima, porodici i prijateljima. Saosećanje se javlja u situacijama gubitka ili bilo koje druge vrste patnje. U češkom uzorku bilo je mnogo više asocijacija na situacije bolesti. Slovački i češki učesnici samo-saosećanje vide pre svega u smislu pozitivnih emocija ljubavi, negativnih emocija tuge i kajanja, kognitivnog razumevanja, ponašanja, pomaganja i naklonosti prema sebi. Samo-saosećanje se prema njihovom mišljenju javlja uglavnom u situaciji unutrašnje patnje ili spolja zbog teških i bolnih situacija. Na slovačkom uzorku, samo-saosećanje bilo više vezano za emocije nesreće, smirenosti, i pružanje samopodrške i samopouzdanja, dok je na češkom uzorku samo-saosećanje bilo više povezano sa kognitivnim balansiranjem i brige o sebi. Generalno, rezultati kvalitativne analize čeških i slovačkih asocijacija sa saosećanjem i samilosti su bili vrlo slični.

Ključne reči saosećanje, kroskulturalno, slobodne asocijacije, samo-saosećanje

ROLE OF INJUNCTIONS ON PREDICTION OF SELF-HANDICAPPING STRATEGIES

Abstract

The purpose of this research is to explore the role injunctions have in predicting tendencies to self-handicapping, a disposition of creating obstacles to one's achievement, so that any possible failures couldn't be assigned to the lack of competence. The data were collected using Script Injunctions Scale and Self-handicapping Scale on a sample of male and female participants, aged 19-32 years. Results indicate that 41.3% of the variance of external handicap in interpersonal area is explained by the model containing injunctions, with an injunction Don't feel as a significant predictor; 48.8% of the variance of internal handicap in interpersonal area, explained by the model containing injunctions, with the injunction Don't belong as a statistically significant predictor. The model explains 55.3% of the variance of external handicap in achievement area, predictors include injunctions Don't be well and Don't think; and 49.6% of the variance of internal handicap in achievement area, where significant contribution to prediction include injunctions Don't succeed and Don't think. There was no significant difference in scores for males and females in any variable of the current study. To conclude, self-handicapping behavior can be predicted based on verbal and nonverbal messages that children receive from their parents during childhood.

Key words: injunctions, self-handicapping, students

Injunctions

Life script is made of script decisions which child makes as a response to script messages that a child receives about itself, about others and the world. There are 3 types of script messages: Drivers, Program and Injunctions. Injunctions are the messages that become an integral part of child's Child Ego State and come from Child Ego State of the parents. Child adopts and creates them before it even learns how to speak (Stewart & Joines, 2011).

Berne considered Injunctions to be "the most important part of the script apparatus" (Berne, 1972; according to Lammers, 1994). Injunctions or stoppers can be given in a form of a personal example, through observational learning (when parents' behavior is inadequate – when they are socially unadjusted,

¹ Corresponding author katarina.mincic.93@gmail.com

when they don't show emotions and don't behave like adults). They can be given through repetitive limitations ("Don't jump", "Don't ask", "Don't cry", etc.), through subtle messages ("He's a shy boy"), but they can also be given in a form of parent's emotional outburst ("I wish you'd never been born!") or explicitly through neglecting and/or abusing (Gavrilov-Jerković, Budiša, Lekić-Babić & Čolović, 2010). These messages can be the result of parents feeling impatient, confused, inadequate or scared and they're usually not aware of possible consequences (Stewart & Joines, 1996, according to Gavrilov-Jerković et al. 2010). All these messages come from parents and significant, powerful others; they lead to inadequate decisions about thinking, feeling and behavior (Lammers, 1994). Each child makes decisions in response to real or imagined injunctions, and thereby "scripts" her/himself (Goulding & Goulding, 1978).

Gouldings have discovered 12 injunctions in their early therapeutic work (Goulding & Goulding, 1972, according to Stewart & Joines, 2011):

Don't exist (*injunction on existing*) – the feeling that we are worthless, useless, unworthy of love and in extreme situations this feeling can lead to suicidal thoughts. These messages are usually transferred through subtle rejection when parent acting from Child Ego State is feeling denied or threatened because of the child's existence. This injunction can also be openly conveyed when the child is unwanted or physically and psychologically abused.

Don't be you (*Don't be your gender*) – this injunction is transferred from parents who have a boy, but they wanted a girl or vice versa. Also, this injunction can be more general and can convey a message "Don't be you, be some other child".

Don't be a child – injunction which is given by parent who in Child Ego State feels threatened because they have a child ("There is a place for only one child here and that's me") or by parents which weren't allowed to behave like children in their childhood. Person who carries this injunction feels uncomfortable in their relationship with the children, also feels stiff on the parties.

Don't grow up – the youngest child often gets this injunction; when parents define their personal value completely based on just how good parents they are. If child grows up, they stop feeling worthy. This injunction is also given by parents who never grew up. Some variants are "Don't ever leave me" and "Don't be sexy". Person who has this injunction is childish and extremely dislikes responsibilities.

Don't be successful – this injunction can be created by a parent who on the level of Child Ego State envies his/her child's accomplishments. Person with this injunction will always try hard and work regularly, but in the end will always sabotage itself.

Don't (*Don't do anything*) – parent is terrified that something will happen to its child, so the parent sends the message "You'll be safer if you do nothing and stick to me". This injunction creates a feeling of indecisiveness.

Don't be important – parent rejects child but sends a message "I can stand your existence as long as you keep in mind that you and your wishes are not

important". People who have this injunction can panic when they are supposed to take a role of the leader, they will never ask for anything for themselves and they can sabotage themselves.

Don't belong – a person with this injunction feels like he "sticks out of the group", while other people can see him as a "loner" and asocial. This message can be transferred when parents constantly repeat that he's "different from other children" or by modeling, when parents are socially unadjusted.

Don't be close – this can be an injunction on physical closeness.. This can also mean "Don't be emotionally close" and this message can be passed through generations in families in which people do not talk about their feelings. Variation of this injunction can be "Don't trust anyone". Person with this injunction will always be suspicious towards the others and even when he finds comfort and acceptance, he will still search for the signs of rejection.

Don't be well (*Don't be sane*) – when parents are too busy to spend time with their child, but they spend time with the child when he/she is feeling sick and in this situation they give the child much more attention than usual ("To get the attention, I have to be sick").

Don't think – manifests when instead of thinking about the ways to solve the specific problem we end up feeling confused or bad. One of the variants of this injunction is "Don't think about sex, money, etc.", or "Don't think what you're thinking, think what I'm thinking".

Don't feel – this injunction can occur if the child's parents tend to hide their feelings. Sometimes there is an injunction to any kind of feeling expressions in the family, but more often there is an injunction to a specific feeling ("Don't be afraid"). Possible variations are "You can feel, but you can't show", and "Don't feel what you're feeling, feel what I'm feeling" (Stewart & Joines, 2011).

The development of the identity could be interrupted by the injunctions *Don't be, Don't be you, Don't grow up, Don't be a child and Don't be important*. Building and maintaining a supportive and functional relationship can be interrupted because of injunctions *Don't be close* and *Don't belong*. When a person's functioning in area of emotions is distorted, limited or inhibited, emotions are not adequate reactions to the here-and-now environment and thus do not help the person to relate. This impairment is connected to the injunction *Don't feel (mad, sad, glad, scared)*. Impairment of cognitive functioning is connected to the injunctions *Don't think, Don't be well/sane*. An important characteristic of many social behaviors is that a person has to learn them to perform adequately, but often parents forget that they had to learn it too; or they cannot imagine that their child can do something better. In the area of behavior, the Gouldings described injunctions *Don't* and *Don't make it* as interrupting factors (Lammers, 1994).

Self-handicapping tendency

What we believe about our own competence and capability represents a vital aspect of the self-concept and is one of the basic elements of individuals' self-esteem. When we have a negative evaluation of our own ability it threatens our general sense of self-worth. Consequently, we tend to adopt various strategies in order to proactively protect our self-esteem in the face of potential danger (Jones & Berglas, 1978; according to Prapavessis, Grove, Maddison & Zillmann, 2003). Self-handicapping is a strategy which refers to the design of obstacles or inhibiting factors for the achievement of certain objective and the acceptance of all factors that decrease personal responsibility for mediocrity or failure, and exaggerate personal responsibility for success (Jones & Berglas, 1978; Berglas & Jones, 1978; according to Čolović, Smederevac & Mitrović, 2009). Self-handicapping is often related to self-esteem, and the correlation is negative, according to some researchers, meaning that the self-handicapping behavior occurs more frequently in individuals with low self-esteem (Burušić & Žganec, 2005). Others (Tice, 1991) think that the relation is more complicated, as in that correlation could be positive or negative, depending on the specific situation. According to one of studies (Tice, 1991) students with low self-esteem are more likely to present self-handicapping behavior if they feel that they could possibly fail an important exam, while students with higher self-esteem are more likely to initiate in self-handicapping behavior when they feel that they could succeed in a more challenging project. Self-handicapping presumably occurs because of threats to self-esteem on important, self-relevant dimensions (Tice, 1991). Adopting self-handicapping strategies serves both self-protection and self-enhancement motives (Tice, 1991). Self has argued that self-handicapping tendency should be viewed in a social context because we only use self-handicapping strategies when there are potential threats to our self-esteem (Self, 1990; according to Prapavessis et al., 2003). Other than self-esteem, clarity of the self-concept has been linked to the concept of self-handicapping, where a less clear sense of self indicates a greater chance of expressing self-handicapping behaviors (Burušić & Žganec, 2005). Before self-handicapping behavior can be expressed, there has to be some sense of self which requires protecting by self-handicapping. Individuals who have a clear sense of who they are, probably will not feel the need for protecting their sense of self by self-handicapping as opposed to people who have an unclear self-concept (Self, 1990; according to Burušić & Žganec, 2005). Authors have also researched the relation of personality characteristics and self-handicapping tendencies. Individuals who present high negative affectivity levels and a negative self-image tend to use emphasizing their lack of psychophysical well-being and giving up as self-handicapping strategies (Smederevac, Novović, Milin, Janičić, Pajić & Biro, 2003). A tendency to repeatedly use the self-handicapping strategies has been linked to lower level of achievement and general maladaptiveness (McCrea, 2008; Zuckerman & Tsai, 2005; according to Mitrović, Smederevac, Čolović, 2009). A

negative correlation has been confirmed between self-handicapping tendency and school grades, as well as self-handicapping tendency and academic self-efficacy (Urđan, Midgley & Adermant, 1998).

Self-handicapping behaviors vary across individuals, but we usually discuss internal and external self-handicapping behaviors. Internal handicaps could be: not investing effort in fulfilling assignments (Tice, 1991), psychosomatic disorders (Organista & Miranda, 1991; according to Čolović et al., 2009), anxiety (Smith et al., 1982; according to Mitrović et al., 2009), substance abuse (Jones & Berglas, 1978; according to Čolović et al., 2009), obesity (Baumeister et al., 1990; according to Čolović et al., 2009), and depression (Weary & Williams, 1990; according to Čolović et al., 2009). External handicaps illustrate creating obstacles in the given situation, for instance setting impossible goals, or choosing poor conditions. The main areas where self-handicapping behavior has been observed could roughly be divided into achievement-related situations and interpersonal situations. External handicaps in interpersonal area include devising different alibis or excuses justifying one's inability to establish stable emotional relationships, such as lack of free time, active social life, preferring partners who are unattainable. Internal handicaps in interpersonal area refer to personal traits such as shyness, clumsiness, insecurity, being more likely to get sick, which are used as an alibi and reason why they don't have meaningful relations. External handicaps in achievement area refer to shifting blame and responsibility to others who are perceived as incompetent, indifferent or hostile instead of being personally responsible for one's failures. Internal handicaps in achievement area include using personal traits such as laziness, perfectionism, poor organizational skills or having trouble concentrating as an excuse for failure, rather than accepting personal incompetence (Čolović et al., 2009).

Injunctions, the early messages the child receives from parent figures or significant others, affect that child's behavior even as an adult. Child who received messages *Don't exist, Don't think, Don't feel* – will probably have the feeling of worthlessness, which affects the child's self-esteem in future relations. Low self-esteem can lead to more intense use of one's self-handicapping strategies (Burušić & Žganec, 2005). Therefore, it is presumed that injunctions could have a role in manifesting self-handicapping behavior. There are no prior studies that have dealt with the possible role that injunctions have on a person's self-handicapping strategies.

Method

Objective

The aim of this research was to examine the role of injunctions in predicting the self-handicapping tendencies.

Sample and procedure

Research sample involved students from the University of Niš (N=142), 74.6% of whom were females (N=106) and 25.4% males (N=36). Convenience sampling method was used to determine participants. The student participants, aged 19-32 years (M=23.73, SD=2.39). Most of the participants filled in an online survey, and the remaining data was collected by distributing paper surveys.

Variables and instruments

Script Injunctions Scale (SSZ; Gavrilov-Jerković, 2010) was used for registering the character and the expressed level of injunctions that the person was exposed to growing up, which are an integral part of a persons' self-image. This Likert type 5-point scale consists of 71 items organized into 12 subscales, representing the operationalization of the injunctions that Goulding & Goulding (1978) suggested: **Don't exist** (don't be), **Don't be you** (don't be your gender), **Don't be a child, Don't grow up** (don't leave me), **Don't make it** (don't be successful), **Don't** (don't do anything), **Don't be important, Don't be close, Don't belong, Don't be well** (or sane), **Don't think, Don't feel**. Cronbach-alpha reliability of the subscales in this research was satisfying – 0.67 (*Don't grow up* and *Don't be close*), 0.78 (*Don't feel*), 0.79 (*Don't make it, Don't be important, Don't belong*), 0.80 (*Don't*), 0.82 (*Don't think*) and 0.84 (*Don't exist*), with the exception of *Don't be well, Don't be a child* and *Don't be you* (0.51, 0.42, 0.35 respectively).

Self-handicapping Scale (SH; Mitrović, Smederevac, & Čolović, 2009) is a 34-item inventory answered on 5-point Likert scale, describing four distinctive subscales which operationalize the variable self-handicapping strategies – *External handicaps in interpersonal area, Internal handicaps in interpersonal area, External handicaps in achievement area* and *Internal handicaps in achievement area*. The scale assesses self-handicapping as a relatively stable trait and the tendency to use self-handicapping strategies in different areas of functioning (Čolović et al., 2009). All of the subscales had satisfying internal consistency in previous research (Mitrović et al., 2009). Cronbach-alpha reliability in this research: external handicaps in interpersonal area $\alpha=0.75$ internal handicaps in interpersonal area $\alpha=0.86$, external handicaps in achievement area $\alpha=0.73$ internal handicaps in achievement area $\alpha=0.76$.

Registered variable was the gender of the participants.

Hypotheses

It is assumed that a self-handicapping strategy can be predicted based on a model which contains injunctions;

It is assumed that external handicaps in interpersonal area can be predicted based on a model which contains injunctions;

It is assumed that internal handicaps in interpersonal area can be predicted based on a model which contains injunctions;

It is assumed that external handicaps in achievement area can be predicted based on a model which contains injunctions;

It is assumed that internal handicaps in achievement area can be predicted based on a model which contains injunctions;

It is assumed that there will be a statistically significant difference in the measures of the variables concerning the gender of the participants;

Results

Linear regression analysis was used in order to test hypotheses of this research concerning a possible prediction of self-handicapping strategies based on person's received injunctions.

Table 1: Injunctions as predictors of external handicaps in interpersonal area

Injunction	B	Sig.	Model Summary
<i>Don't</i>	-.136	.162	
<i>Don't succeed</i>	-.025	.831	
<i>Don't be important</i>	.166	.257	
<i>Don't belong</i>	.070	.555	
<i>Don't be close</i>	.049	.690	
<i>Don't be well</i>	-.039	.716	R= .68
<i>Don't think</i>	.165	.228	R ² = .46
<i>Don't feel</i>	.460	.000	R ² (adj)=.41
<i>Don't exist</i>	-.043	.736	p < 0.01
<i>Don't be you</i>	.098	.233	
<i>Don't be a child</i>	.018	.841	
<i>Don't grow up</i>	-.092	.306	

The model is statistically significant (R²(adj)=.41, p<.01) and explains 41.3% of the variance of external handicaps in interpersonal area. Statistically significant predictor in this regression model is the injunction *Don't feel* (β =.46, p<.01).

Table 2: Injunctions as predictors of internal handicaps in interpersonal area

Injunction	B	Sig.	Model Summary
<i>Don't</i>	.153	.091	
<i>Don't succeed</i>	.204	.068	
<i>Don't be important</i>	.124	.367	
<i>Don't belong</i>	-.253	.024	R=.72
<i>Don't be close</i>	.154	.183	R ² = .53
<i>Don't be well</i>	-.070	.480	R ² (adj)=.48
<i>Don't think</i>	.185	.146	p < 0,01
<i>Don't feel</i>	.219	.058	
<i>Don't exist</i>	-.125	.299	
<i>Don't be you</i>	.137	.075	
<i>Don't be a child</i>	.041	.631	
<i>Don't grow up</i>	.069	.406	

The model is statistically significant ($R^2(\text{adj})=.48$, $p<.01$) and explains 48.8% of the variance of internal handicaps in interpersonal area. Statistically significant predictor in this regression model is the injunction *Don't belong* ($\beta=-.25$, $p<.01$).

Table 3: Injunctions as predictors of internal handicaps in achievement area

Injunction	B	Sig.	Model Summary
<i>Don't</i>	-.030	.734	
<i>Don't succeed</i>	.471	.000	
<i>Don't be important</i>	-.055	.684	
<i>Don't belong</i>	.018	.873	
<i>Don't be close</i>	-.101	.375	R=.73
<i>Don't be well</i>	-.023	.812	R ² =.53
<i>Don't think</i>	.398	.002	R ² (adj)=.49
<i>Don't feel</i>	.043	.707	p < 0.01
<i>Don't exist</i>	-.052	.664	
<i>Don't be you</i>	.045	.553	
<i>Don't be a child</i>	-.072	.400	
<i>Don't grow up</i>	.097	.243	

This model is statistically significant ($R^2(\text{adj})=.49$, $p<.01$) and explains 49.6% of the variance of internal handicaps in achievement area. Statistically significant predictors in this regression model are injunctions *Don't succeed* ($\beta=.47$, $p<.01$) and *Don't think* ($\beta=.39$, $p<.01$).

Table 4: Injunctions as predictors of external handicaps in achievement area

Injunction	B	Sig.	Model Summary
<i>Don't</i>	.012	.890	
<i>Don't succeed</i>	.196	.060	
<i>Don't be important</i>	.121	.344	
<i>Don't belong</i>	-.097	.350	
<i>Don't be close</i>	.101	.348	R=.76
<i>Don't be well</i>	.253	.007	R ² =.59
<i>Don't think</i>	.248	.038	R ² (adj)=.55
<i>Don't feel</i>	.069	.520	p < 0.01
<i>Don't exist</i>	-.145	.196	
<i>Don't be you</i>	-.082	.253	
<i>Don't be a child</i>	.066	.410	
<i>Don't grow up</i>	.139	.076	

This model is statistically significant ($R^2(\text{adj})=.55$, $p<.01$) and explains 55.3% of the variance of external handicaps in achievement area. Statistically significant predictors in this regression model are injunctions *Don't be well* ($\beta=.25$, $p<.01$) and *Don't think* ($\beta=.24$, $p<.01$).

There wasn't a statistically significant difference in measures of the variables concerning the gender of the participants.

Discussion

The aim of this research was to examine the role of injunctions in predicting the self-handicapping tendencies.

Through the process of linear regression analysis, enter method, it was concluded that the model containing all of the injunctions explains 41.3% of the variance of external handicaps in interpersonal area. Statistically significant injunction "Don't feel" compels a person to defend him/herself by hiding their emotions (Hay, 2013). People who received the injunction "Don't feel" don't express their feelings in an open manner or don't express specific emotions that were "forbidden" in their family, tabooed, such as sorrow, sadness, fear, anger, resentment, fondness, love etc. (Stewart & Joines, 2011). When faced with their own inability to establish a stable emotional relationship, individuals who received the injunction "Don't feel" are likely to use various excuses and in that way conceal personal responsibility and the role they played in co-creating this outcome. These excuses are usually linked to external factors, other people, partners or friends, lack of free time, other responsibilities in life.

Model containing 12 injunctions explains 48.8% of the variance of internal handicaps in interpersonal area. Statistically significant was the injunction "Don't belong", but with a negative value, which is an unexpected result. This indicates that person with a strong "Don't belong" injunction tends to avoid self-handicapping behaviors in the area of interpersonal relations. Belonging is a basic need and to belong is a powerful feeling which gives us the sense of security and even identity. Receiving the injunction "Don't belong" implies feeling inadequate, as someone who never "fits in", an outsider, and this individual is perceived by others as a loner (Stewart & Joines, 2011). Our results could indicate that people who view themselves as outsiders try not to handicap themselves in relationships with others. Staying true to their need for belonging, they might be invested in forming and maintaining meaningful relationships with others. And if and when those relationships don't last, the blame isn't necessarily placed on their personal traits such as shyness, clumsiness, being more likely to get sick, just to avoid being responsible for the failure of the relationship, which would be expected of people who tend to self-handicap themselves in interpersonal area of functioning. They might blame themselves, their inadequacy, and accept the responsibility.

Model containing injunctions explained 49.6% of the variance of internal handicaps in achievement area. Statistically significant were the injunctions "Don't succeed" and "Don't think" Injunction "Don't succeed" can be created by a parent who feels envy from the Child Ego State because of the child's accomplishments (Stewart & Joines, 2011). A person who receives this injunction will continuously

question personal competence, try hard to finish all the assignments and eventually find a way to self-handicap. The failure will be assigned to their perfectionism or lack of responsibility because that is more acceptable than not being competent or intelligent enough to succeed. We prefer having this perception of ourselves as perfectionists instead of doubting our capacities, skills and qualifications (Čolović et al., 2009). Children of parents who from their Child Ego State frequently belittle and underestimate child's way of thinking or label their child as "not smart enough" will receive the injunction "Don't think" (Gavrilov-Jerković et al., 2010). The child grows up believing that it's better to just keep quiet, never says the right thing at the right time (Gavrilov-Jerković et al., 2010). As an adult when an individual who received the injunction "Don't think", finds him/herself in situations that are perceived as difficult and surpassing individual's capacities, the individual will tend to refuse to complete the assignment stating perfectionism, laziness, poor organizational skills, problems concentrating or not investing themselves enough as reasons (Čolović et al., 2009).

Statistically significant model containing injunctions explains 55.3% of the variance of external handicaps in achievement area, statistically significant predictors are injunctions "Don't be well" and "Don't think". Injunction "Don't be well" can be received when parents are too busy to spend time with their child, but they spend time with the child when he/she is feeling sick and in this situation they give the child much more attention and affection than usual, so the child concludes "In order to get attention I have to be sick or unwell". As an adult with this injunction, each time when "things go wrong" the individual will self-handicap (Stewart & Joines, 2011) in order to avoid confronting with the possibility of failure. Individuals who received injunction "Don't be well" could have low self-esteem since their experience with acknowledgment and affirmation is limited to the situations in which they were unwell. Unstable sense of self-worth is one of the reasons for choosing external self-handicapping strategies (Mitrović et al., 2009). Statistically significant predictor of external handicaps in achievement area was the injunction "Don't think". A person who received this injunction is insecure about personal competence and intelligence and will form self-concept and sense of self-worth based on what other people think about him/her. In order to protect personal self-image, individual with an unclear and unstable self-concept can resort to external self-handicapping strategies.

Results indicate that some of the injunctions received in our childhood can affect the way we behave as adults when it comes to interpersonal relationships and in achievement-related situations. When we were children, we accepted some of the messages and came to certain decisions about ourselves, others and the world we live in. Those early decisions become dysfunctional and illogical in adulthood, and we can now as adults operate with the information and resources from here-and-now from the Adult Ego State. When in script, as adults, we will tend to unawaresly play out our early decisions instead of reacting as adults. After we receive unpleasant results the Child can feel "Yes indeed, the world is really the

way I believed it was" (Stewart & Joines, 2011). Self-handicapping behavior could be viewed as a product of living according to the script, because it implies writing off our own competency to resolve problems and to deal with the hardships, while simultaneously emphasizing other specific aspects of reality and in that way preventing authentic way of life (Akin & Akin, 2014).

Limitations of this research are first and foremost a small and unequally gender balanced sample. It is necessary to expand the sample and to be careful of the gender balance. Results indicate that adapted set of injunctions can be used to predict self-handicapping tendencies. Future research can provide better insight into this mechanism, and determine which variables could have a mediating role in the self-handicapping process. These results could be of use in the area of therapeutic counseling or educational programs.

References

- Akin, A., & Akin, U. (2014). Examining the Relationship between Authenticity and Self-Handicapping. *Psychological Reports*, 115 (3), 795-804
- Burušić, J., & Brajša Žganec, A. (2005). Odnos samohendikepiranja, samopoštovanja i jasnoće pojma o sebi. *Psihologijske teme*, 14 (1), 83-90.
- Čolović, P., Smederevac, S., & Mitrović, D. (2009). Osobine ličnosti, starost i pol kao prediktori sklonosti ka samohendikepiranju. *Psihologija*, 42(4), 549-566.
- Gavrilov-Jerković, V., Budiša, D., Lekić-Babić, N., & Čolović, P. (2010). Procena skriptnih zabrana (SSZ-skala). In: Biro, M., Smederevac, S., Novović (ed.) *Procena psiholoških i psihopatoloških fenomena*, CPP, Beograd, 123-140.
- Goulding, R. L., & Goulding, M. M. (1978). *The power is in the patient: A TA/gestalt approach to psychotherapy*. Royal Victorian Institute for the Blind Tertiary Resource Service.
- Hay, L. (2013). *Injunctions – An Essay*. https://www.juliehay.org/uploads/1/2/2/9/12294841/injunctions_-_an_essay.pdf?fbclid=IwAR3sNQ2nmXma1aDoDJ4p1_ywSZ44ykH3DsVQCcfGtBqHuGJuUbWGoE2G71Y Accessed: 16.03.2019.
- Lammers, W. (1994). Injunctions as an Impairment to Healthy Ego State Functioning. *Transactional Analysis Journal*, 24(4), 250–254.
- Mitrović, D., Smederevac, S., Čolović, P. (2009). Procena samohendikepirajućeg ponašanja (SH upitnik). In: Biro, M., Smederevac, S., Novović, Z. (2009). *Procena psiholoških i psihopatoloških fenomena* (29-42). Beograd: Centar za primenjenu psihologiju.
- Prapavessis, H., Grove, J. R., Maddison, R., & Zillmann, N. (2003). Self-handicapping tendencies, coping, and anxiety responses among athletes. *Psychology of Sport and Exercise*, 4(4), 357-375.
- Smederevac, S., Novović, Z., Milin, P., Janičić, B., Pajić, D., & Biro, M. (2003). Tendency to self-handicapping in the situation of expected failure. *Psihologija*, 36, 39-58.
- Stewart, I. & Joines, V. (2011). *TA today- A New Introduction to Transactional Analysis*. Novi Sad: Psihopolis.

- Tice, D. M. (1991). Esteem protection or enhancement? Self-handicapping motives and attributions differ by trait self-esteem. *Journal of Personality and Social Psychology*, 60(5), 711.
- Urduan, T., Midgley, C., & Anderman, E. M. (1998). The role of classroom goal structure in students' use of self-handicapping strategies. *American Educational Research Journal*, 35(1), 101-122.

Katarina Minčić²

Milena Vujičić

Kristina Milević

Marija Todosijević

Psychological counseling service for students, Niš

ULOGA ZABRANA U PREDVIĐANJU SAMOHENDIKEPIRAJUĆEG PONAŠANJA

Sažetak

Svrha ovog istraživanja je istražiti ulogu koju zabrane imaju u predviđanju tendencije ka samohendikepiranju, sklonosti ka stvaranju prepreka ka svom dostignuću, kako se eventualni neuspesi ne bi mogli pripisati nedostatku kompetencije. Podaci su prikupljeni pomoću Script Injunctions Scale i Self-Handicapping Scale na uzorku muških i ženskih učesnika, starosti od 19 do 32 godine. Rezultati pokazuju da je 41,3% varijanse spoljnog hendikepiranja u interpersonalnom području objašnjeno modelom koji sadrži zabrane, s tim što je zabrana Nemoj da osećaš značajan prediktor; 48,8% varijanse unutrašnjeg hendikepiranja u interpersonalnom području, objašnjeno je modelom koji sadrži zabrane, uz zabranu Nemoj da pripadaš kao statistički značajan prediktor. Model objašnjava 55,3% varijanse spoljnog hendikepiranja u oblasti postignuća, prediktori uključuju zabrane Nemoj da budeš dobro i Nemoj da misliš; i 49,6% varijanse unutrašnjeg hendikepiranja u oblasti postignuća, gde značajan doprinos predviđanju uključuju zabrane Nemoj da uspeš i Nemoj da misliš. Nije bilo značajne razlike u rezultatima za muškarce i žene u nijednoj varijabli ove studije. Zaključno, samohendikepirajuće ponašanje može se predvidjeti na osnovu verbalnih i neverbalnih poruka koje deca dobijaju od svojih roditelja tokom detinjstva.

Ključne reči: zabrane, samohendikepiranje, studenti

² Corresponding author katarina.mincic.93@gmail.com

PEN OR VP+2 MODEL IN PREDICTING SCHOOL ANXIETY

Abstract

The research aim was to determine which model of personality traits (PEN or VP+2) better predicted school anxiety and to determine constructive validity of AFS scale and convergent validity of PEN and VP+2 models. The research was conducted on a sample of 120 high school students, aged 18-19 (59.2% male and 40.8% female). The following instruments were applied: Eysenck's Personality Questionnaire (Eysenck & Eysenck, 1975), The Big Five plus two Questionnaire - shortversion (VP+2-70; Colović, Smederevac & Mitrović, 2014) and AFS scale (Vulić Prtoric & Soric, 2002). The result of hierarchical regression analysis showed that two blocks of dimension prediction the Test Anxiety were statistically significant, block 1 ($R=0.599$, $R^2=0.359$, $F=16.088$, $p<0.001$) and block 2 ($R=0.622$, $R^2=0.387$, $F=6.207$, $p<0.001$). It was found that the two models of dimension prediction the Manifest Anxiety were statistically significant, block 1 ($R=0.743$, $R^2=0.552$, $F=35.422$, $p<0.001$) and block 2 ($R=0.782$, $R^2=0.612$, $F=15.505$, $p<0.001$). The largest partial contribution in predicting Test Anxiety ($\beta=0.504$, $p<0.001$), Manifest Anxiety ($\beta=0.724$, $p<0.001$) and School Dissatisfaction ($\beta=0.362$, $p<0.001$) had the dimension of Neuroticism-Emotional Stability. Two blocks of dimension prediction the Social Desirability were statistically significant, block 1 ($R=0.442$, $R^2=0.196$, $F=6.997$, $p<0.001$) and block 2 ($R=0.511$, $R^2=0.261$, $F=3.461$, $p<0.001$). The largest partial contribution in predicting Social Desirability ($\beta=0.344$, $p<0.01$) had the Lay Scale. It was found that the two models of dimension prediction the School Dissatisfaction were statistically significant, block 1 ($R=0.476$, $R^2=0.226$, $F=8.411$, $p<0.001$) and block 2 ($R=0.591$, $R^2=0.350$, $F=5.276$, $p<0.001$). The results suggested better predictive power of the PEN model.

Key words: personality traits, school anxiety, PEN model, VP+2 model, high school students.

Introduction

Adolescence is a developmental stage in the life of an individual that connects childhood and early adulthood and encompasses a time period between the tenth and twenty-second years of life (Nešić & Radomirović, 2000). According to the World Health Organization (as cited in Brković, 2011), adolescence is a process of biological and psychosocial maturation, which takes place between the 10th and 24th years and is divided into early adolescence (from the age of 10, up to 14), middle adolescence (from the age of 15 up to 19) and late (from the age of

¹ corresponding authors majastanojevic25@gmail.com & danica.vukic@yahoo.com

20 to 24) adolescence. There are three sub-stages of the adolescent period: early, mid and late (Ninčević, 2009). The early period begins with puberty and includes a period between the age of 10 and the 14, the mid adolescence is between the 15 and 18, while the late adolescence period is difficult to estimate, and it is placed between the 19 and 22 years of age, or even 24 (Ninčević, 2009). Author Hurlock (1959, as cited in Đurić, 1997) even divides this developmental period into three parts: preadolescence, which lasts from about 10 to 12 years of age, then early adolescence, which lasts from about 13 to 16 and late adolescence, which lasts from about 17 to 20 years of age. Although adolescent boundaries are related to the age of 12 to 19 (Kostić, 2006), technological progress has led to the need for continued education, so the period of adolescence had been extended (Logue, 2001).

During this period, young people are going through a turbulent period of life, accompanied by changes and tasks related to parental independence, the choice of further education and profession, the forming of peer groups and the establishment of first partnerships. A certain number of anxiety symptoms are expected to occur in transitional periods, such as starting high school, starting college, and generally in situations that are challenging in terms of adaptation. The important task of all persons working with youth is to improve their mental health, to recognize and help them reduce the anxiety.

Some adolescents face difficulties in their relations with peers. This difficulties can be grouped into two broad categories: externalizing and internalizing problems (Achenbach & Edelbrock, 1978). The construct of externalizing behavior problems refers to a group of behavior problems that are manifested in adolescent's outward behavior, negative acting out of a child in the external environment (Eisenberg et al., 2001), and includes the effects of low control, expressed by aggressive, impulsive, antisocial and challenging behaviours (Achenbach & Edelbrock, 1978). Internalizing problems include the excessive control, expressed in forms of social withdrawal, inhibition, depression or various forms of anxiety, which bring immediate consequences for the adolescent himself/herself, limiting social experiences and thus creating obstacles for the social and psychological adjustment in adolescence (Aunola & Nurmi, 2005).

Due to the negative consequences for the individual mental health, and considering the emotional and social cost for the families and society in general, anxiety as one of the internalizing problems of adolescents, which has been in the focus of great attention of researchers (Spielberger et al, 1983; Tovilović, Novović, Mihić & Jovanović, 2009). Anxiety is defined as "diffused, internal, freely floating tension, which does not have a real danger, i.e. there is no external object" (Marić, 2005, p. 194). It is an intensely unpleasant state of tension arising from experiencing disapproval in interpersonal relations (Han, 2009). Anxiety can be defined as a state and as a trait (Spielberger et al, 1983). According to Spielberger et al., 1983, the anxiety that is assessed as a trait represents general anxiety (how a person generally feels), while anxiety as a state refers to situational anxiety (how

a person feels right now, at a given moment). Situations that can trigger anxiety can be divided into: 1) social evaluation; 2) physical danger; 3) new and unclear situations; and 4) daily routine (Endler & Okada, 1975). Social anxiety is a form of anxiety resulting from social evaluation (Leary & Kowalski, 1995). Leary (1983) considers that it is necessary to distinguish social anxiety as a state and social anxiety as disposition.

In this paper, the concept of anxiety will be seen as related to a school setting and as a potentially crucial indicator of unaccepted behavior in adolescents. Hancock (2001, p.284) posited that most prominent researchers view test anxiety as a relatively stable personality trait that prompts an individual to react to threatening situations with sometimes debilitating psychological, physiological, and behavioral responses. In many studies it has been shown that the test anxiety was a key factor in undermining student's performance (Hembree, 1988; Merell, 2008; Rana & Mahmood, 2010; Syokwwa, Aloka & Ndununge, 2014). Hembree (1988) carried out a meta-analysis with the sample of 562 studies in which the relationship between test anxiety and student's performance were addressed. Students with high levels of test anxiety scored significantly lower on standardized tests (in math and reading), compared with students with lower levels of anxiety (Hembree, 1988). In one research (Syokwwa et al., 2014), results showed that Test Anxiety was statistically significant predictor of school achievement ($r=-0.196$, $p<0.001$). General Anxiety was not statistically significant predictor of school achievement ($r=-0.063$, $p>0.05$).

The most popular inventory for measuring trait anxiety in adolescents was: *The S-R Inventory measures trait anxiety in adolescents* (Endler, Hunt & Rosenstein, 1962), *Multifactorial Scale of Anxiety in adolescents* (Fenz & Epstein, 1965), *State-Trait Anxiety Inventory (STAI) Form Y-1 and Y-2* (Spielberger, 1973) and *Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978)*.

Wieczerkowski et al. (1973, according to Vulic Prtoric & Soric, 2002) have determined the existence of four basic aspects of anxiety in children: Test Anxiety, Manifest Anxiety, School Dissatisfaction and Social Desirability. Test Anxiety consists of feeling of helplessness and discomfort occurring in a test situation in the form of errors while solving tasks (Vulic Prtoric & Soric, 2002). The Test Anxiety indicator is "When the teacher asks me something and when I have to come in front of the blackboard, I'm afraid that I might say something incorrect." The Manifest Anxiety includes general symptoms such as heart palpitations, sleep disturbances and disruption of concentration, anxiety and decreased self-confidence, and it is a tendency for anxiety reactions which occurs in various life situations (Vulic Prtoric & Soric, 2002). Indicator of the Manifest anxiety is "I'm often very nervous". School dissatisfaction is a product of frequent negative experiences accumulated during schooling, and is partly a result of fear of examination and failure (Vulic Prtoric & Soric, 2002). Indicator of School dissatisfaction is, for example, "In the morning, the thought of the school itself makes me moody." Social desirability is a tendency of students to behave in an adjusted and socially desirable way, or

fear of deviating from socially desirable forms of behavior (Vulic Prtoric & Soric, 2002). The indicator of Social desirability is "I always tell the truth". In our country, the period of adolescence was extended due to inability of youngsters to find work and due to extended education, and one of the goals of the researcher was also the validation of the AFS scale on a sample of adolescents from the late adolescent subperiod.

Personality traits had good predictive power in expressing anxiety in adolescents (Vujicic & Randjelovic, 2017). Olport defines personality traits as "a neuropsychic structure that has the ability to make many stimuli functionally equivalent and to encourage and guide the equivalent (meaningfully consistent) forms of adaptive and expressive behavior (Allport, 1961, as cited in Fulgosi, 1997, p.219)." They are related to a large number of stimuli and responses and therefore represent the lasting and generalized properties of an individual.

Throughout history of psychology, a large number of personal traits have been researched, as well as numerous questionnaires, that have been invented in order to measure them (Goldberg, 1971). Theoreticians and practitioners in the field of psychology of personality offered certain approaches in order to study personality and personal traits (Fulgosi, 1997). Two dominant approaches of personality studies are psychobiological and psycho-lexical (Fulgosi, 1997). Psychobiological approach is primarily sought for individual differences based on biological mechanisms, which is the first prerequisite for identifying some personality traits as basic, but not necessarily. Psycho-lexical approach starts from the idea that the traits in which people differ, and which have proven to be significant in everyday human experience, are coded into the language (Smederevac et al., 2010).

The personality theory of Hans Eysenck is based on the results of factor analysis and the definition of neurophysiological correlates of extracted factors (Eysenck & Eysenck, 1975). Factors are conceptualized as personality dimensions rather than types, so each person has a position on the continuum of the measured dimension. Eysenck (1953), as a supporter of behaviorism, felt that learning is a process that significantly influences the development of personality, but to highlighted the influence of the inheritance, actually the characteristics of the alertness of the central nervous system. The basic domain of personality Eysenck determined by means of two dimensions, the dimensions of *Extraversion-Introversion* and the dimensions *Neuroticism-Emotional Stability* (Eysenck, 1953), which are mutually orthogonal and bipolar.

In later studies, Eysenck extracted another dimension of personality, which is *Psychoticism-Normality* (Eysenck & Eysenck, 1976). Eysenck's personality model is designated as a PEN model. The three basic personality dimensions are the characteristics of all people. It should be noted that each of the dimensions has an hereditary basis, but each one is under the influence of the surrounding factors. *Extraversion-Introversion* is the dimension of personality that represents the continuum of the primary personality orientation from the outside (towards

others) to the primary focus on oneself and to their own internal survival (Eysenck, 1953; Eysenck & Eysenck, 1975).

The essence of Extraversion-Introversion dimension is based on the excitatory-inhibitory balance (Eysenck, 1957, as cited in Fulgosi, 1981). Introverts can easily be conditioned and easily establish positive reflexes, unlikely Extraverts. The dominance of the excitation would correspond to Introversion, while the dominance of the inhibition corresponds with Extraversion (Fulgosi, 1981, p. 404). Neuroticism-Emotional stability is a personality dimension that is based on the characteristics of the autonomic nervous system (Eysenck, 1953). Neuroticism presents emotional instability, the inability of a person to overcome stress and tendency to generate depressive, anxious and other proneurotic states (Međedović, 2009). An emotionally stable person adequately manifests and controls their emotions. People with high score on Psychoticism are cold, without empathy, aggressive, egocentric and often show impulsive and antisocial behavior (Eysenck & Eysenck, 1975). The personality of people with high scores on Psychoticism is described by the following terms: lonely, uncomfortable and bored, cruel, with poor feelings and lack of empathy, rough towards others, hunger of thrills and prone to strange and unusual things (Eysenck & Eysenck, 1975).

The creation of the VP+2 model is related to the sampling of value-based words as well as the adjectives related to the mood, actually to usage of Tellegen and Waller methods (Almagor, Tellegen, & Waller, 1995). All nouns, verbs, and personality references are included in the initial list of descriptions. The result of their study is the Seven-Factor Personality Model with two added factors, Positive and Negative Emotionality (Almagor et al., 1995). As a result of psycho-lexical studies in Serbia, the instrument Big Five plus Two was created (VP+2; Smederevac et al., 2010), which is designed to estimate the seven basic dimensions of the personality: *Neuroticism*, *Extraversion*, *Conscientiousness*, *Aggressiveness*, *Openness to experience*, *Negative Valence* and *Positive Valence*. Each of the seven scales has two or three sub-scales. The scale of *Neuroticism* has three subcategories: anxiety, depression, and negative affect. The *Extraversion* scale contains three sub-scales: cordiality, positive affection, and sociability. The *Conscientiousness* scale has three sub-scales: self-discipline, perseverance, and prudence. The *Aggressiveness* scale contains three sub-scales: rage, intransigence and difficult nature. The scale of *Openness* has two sub-scales: the intellect and the search for a news. The *Negative Valence* scale consists of two sub-scales: manipulative behavior and negative image of oneself. The *Positive valence* scale consists of two sub-scales: superiority and a positive image of oneself. Neuroticism is the dimension of individual differences which represents the degree of reactivity to potentially endangering stimuli. Persons with less intense Neuroticism can be characterized as emotionally stable, saddled, relaxed, able to deal with stressful events without panic disturbance (Smederevac et al., 2010). *Extraversion* determines the number of interpersonal relationships that a person feels comfortable with. People

with high scores on this dimension are characterized by high involvement in the outside world, can easily and quickly establish interpersonal relations, have preferences for large groups, inclination to seek excitement, experiencing positive emotions, optimism, activity, positive affectivity and can rapidly adapt to changes in the surrounding. People with low scores on this dimension feel more comfortable when they are not surrounded by a large number of people, they are reserved, which does not mean antisocial, more independent and more moderate (Smederevac et al, 2010). *Conscientiousness* is the dimension of individual differences that relates to attitude towards obligations, that actually is the number of goals to which someone is directed, as well as self-control, systematicness and persistence in realization of goals (Smederevac, 2002). People with high scores on this dimension are oriented towards several goals and show self-discipline related to this orientation, while people with low scores tend to focus on a number of goals that are superficial, non-systematic and with a high degree of spontaneity (Hedrich, 2008). *Aggressiveness* is a dimension that implies individual differences in the frequency and intensity of aggressive impulses, as well as the differences in the control and intensity of the aggressive reaction itself. *Openness to experience* refers to the acceptance of new ideas, approaches and experiences. This dimension is a feature that includes intellectual curiosity, a wide range of interests and openness to change (Smederevac et al, 2010). *Positive Valence* is the dimension of self-evaluation which implies a positive attitude towards oneself and a positive self-evaluation, while *Negative Valence* implies a negative attitude toward oneself and a negative self-evaluation (Smederevac et al., 2010).

By examining the facets of the VP+2 model, it can be seen that they differ from the facets of the basic dimensions of the Five Factor Personality Model (Costa & McCrae, 1992; Knežević et al., 1997). A couple of years earlier, Costa and McCrae (1992) had developed a three-factor model of personality with the three factors labeled Neuroticism, Openness, and Extraversion. At a seminar in Baltimore hosted by Costa and McCrae, Goldberg convinced them to add two factors, Agreeableness and Conscientiousness (Wiggins, 1994). The Psychoticism factor has been used in place of the two domains of Agreeableness and Conscientiousness (Eysenck, 1992). The characteristics of the personality of the Five Factor Model are: Neuroticism (anxiety, hostility, depression, social discomfort, impulsivity, vulnerability), Extroversion (warmth, compassion, assertiveness, activity, seeking for excitement, positive emotions), Openness (fantasy, aesthetics, ideas, values), Agreeableness (trust, honesty, altruism, indulgence, modesty, mild nature) and Conscientiousness (competence, order, duty, achievement, self-discipline and discretion).

According to Eysenck's theory, people with high scores on dimension Neuroticism and low scores on dimension Extraversion usually tend to develop symptoms of anxiety and depression (Fulgosi, 1987). The Big Five and Big Three schemes are closely related with neuroticism, being essentially identical to negative emotionality and extraversion corresponding to positive emotionality

(Clark, Watson & Mineka, 1994). Neuroticism is associated with low emotional intelligence, which involves emotional regulation, motivation, and interpersonal skills. It is also a risk factor for “internalizing” mental disorders such as phobia, depression, panic disorder, and other anxiety disorders traditionally called neuroses (Hettema, Neale, Myers, Prescott & Kendler, 2006). In a study conducted by Marić (2010), which established the contribution of the dimension of the BIG five model and life events to the prediction of symptoms of anxiety in adolescents, it was found that Agreeableness ($\beta=0.247$, $p<0.001$) is a significant predictor of the degree of manifested symptoms of anxiety. Alinčić (2013) found that Extraversion ($\beta=-0.21$, $p<0.001$), Neuroticism ($\beta=0.59$, $p<0.001$) and Openness to experience ($\beta=-0.13$, $p<0.05$) from the VP+2 model are significant predictors of Social anxiety. In one Serbian research (Vujic & Randjelović, 2017), conducted on a sample of 977 secondary school students (397 boys and 607 girls), was determined the predictive power of BIG five personality traits in expressing depression, anxiety and stress. The results showed that the regression model constructed by personality traits explain 26% of the criterion variable of Anxiety. The largest individual contribution to the prediction of this variable is achieved by the personality trait Neuroticism ($\beta=0.34$, $p<0.01$), then Extraversion ($\beta=-0.17$, $p<0.01$), Agreeableness ($\beta=-0.14$, $p<0.01$) and Conscientiousness ($\beta=-0.17$, $p<0.01$). Symptoms of anxiety appear to be commonly reported amongst individuals low in Conscientiousness and Emotional stability (Kotov et al., 2010). Gramstad and colleagues (2013) found a positive connection between Neuroticism and anxiety. Among medical students, Neuroticism was associated with levels of perceived job stress and higher levels of anxiety symptoms. Results of one study (Akram et al., 2019), conducted on a sample of 557 participants (age range 18–81, 75% female; 74% student), showed that Anxiety negative correlates with Extroversion ($r=-0.29$, $p<0.01$), Agreeableness ($r=-0.11$, $p<0.01$), Conscientiousness ($r=-0.26$, $p<0.01$), Emotional Stability ($r=-0.68$, $p<0.01$) and Openness to new experiences ($r=-0.10$, $p<0.05$). Khodamori and Rafiee (2016), on a sample of 143 high school students, founded a positive significant relationship between Test anxiety and Neuroticism in NEO-FFI model ($r=0.26$, $p<0.001$) and negative with Extroversion ($r=-0.20$, $p=0.025$), Openness to experience ($r=-0.01$, $p<0.835$), Agreeableness ($r=-0.27$, $p<0.001$) and Conscientiousness ($r=-0.30$, $p<0.001$). The relationship of state and trait anxiety (Y form) and personality traits (EPQ) was investigated in on Malaysian research on a randomly selected sample (263 subjects) from the list of 13 faculties at Universiti Putra Malaysia (Asgari, 2002). It was founded that Introversion and Neuroticism were positively related to state and trait anxiety, while Extraversion and Stability were negatively correlated to state and trait anxiety.

The central goal of research is to determine which model better predicts school anxiety: PEN or VP+2 model. The specific objectives of the research are to determine the predictive power of individual models of personality characteristics in relation to school anxiety. Based on models of personality listed above, there is expected difference in the predictive power of school anxiety between PEN

model and VP+2 model. Primary expectations are that the PEN model has stronger predictive power of school anxiety due to biological indicators of both PEN model dimensions and anxiety. Also, the highest correlation is expected between Neuroticism and Anxiety, because they are aspects of emotional instability, as well as PEN's model Neuroticism's tendency to generate state of anxiety (Fulgosi, 1981).

Research method

Research goals

1. Determine the constructive validity of the AFS scale.
2. Determine the convergent validity of the PEN and the VP+2 models.
3. Determine the explanatory power of the PEN and the VP+2 models in predicting school anxiety.

Instruments

Eysenck Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975) consists of 90 items in the format of binary scale. On the sample of adolescents in this study, only the scale Neuroticism-Emotional stability ($\alpha=0.858$) has the acceptable reliability. Other scales of the EPQ questionnaires are below the acceptable reliability limit ($\alpha=0.70$): the Extraversion-Introversion ($\alpha=0.668$), the Psychoticism ($\alpha=0.516$) and the Lie scale ($\alpha=0.48$). The positive pole of dimension N is Emotional imbalance, while the negative pole is Emotional stability. The positive scores on E dimension reflect Extraversion, while negative scores reflect Introversion. High P scores refer to Psychoticism (firmness, rigidity, intolerance), while low P scores indicate softness and indulgence. High L scores indicate a tendency for social acceptance, while lower L scores indicate a weaker tendency for social acceptance.

The Big Five plus two Questionnaire – short version (VP+2-70; Smederevac, Mitrovic & Colovic et al., 2014) consists of 70 items in the format of seven-degree Likert's scale. All scale of the VP+2 questionnaires have the acceptable reliability limit ($\alpha=0.70$): the Neuroticism ($\alpha=0.850$), the Extraversion ($\alpha=0.826$) the Conscientiousness ($\alpha=0.719$), the Aggressiveness ($\alpha=0.754$), the Openness to experience ($\alpha=0.828$) Positive Valence ($\alpha=0.846$) and the Negative Valence ($\alpha=0.877$).

Anxiety scale for children (AFS; Wiczerkowski et al., 1973, as cited in Vulić-Prtorić & Sorić, 2002) consists of 44 items in the format of three-degree Likert's scale. Only the scale School Dissatisfaction ($\alpha=0.562$) is below the acceptable reliability limit ($\alpha=0.70$). Other scales of the AFS scale have the acceptable reliability: the Test Anxiety ($\alpha=0.866$), the Manifest Anxiety ($\alpha=0.800$) and the Social Desirability ($\alpha=0.744$).

Sample and procedure

The sample is based on convenience and it was made of 120 high school students of the Technical School „15 May“ in Prokuplje, aged ($M=18.1$; $SD=0.32$), 18 years (88.3%) and 19 years (11.7%). The sample consists of 71 (59.2%) boys and 49 (40.8%) girls, of which 64 (53.3%) living in the city and 56 (46.7%) in the village. The research was conducted in September 2017. The respondents were informed that the examination was completely anonymous, and that the results would be used exclusively for research purposes.

Data analysis

In order to determine the contribution of PEN and VP + 2 personality traits to the prediction of dimensions of school anxiety, a hierarchical regression analysis was used. Predictors are the personality traits of PEN and VP+2 models, while the criteria are the dimensions of school anxiety. Constructive validity of AFS scale was verified by Exploratory Factor Analysis. Pearson's correlation coefficient was used for determining convergent validity and for correlations between personalitz traits and dimensions of anxiety.

Research results

Results showed that the Bartlett's Test of Sphericity was statistically significant (Approx. Chi-Square $_{(946)} = 2263.158$, $KMO=0.697$, $p<0.001$). Exploratory Factor Validity of the AFS was confirmed by the method of the principal components. Thirteen factors have been extracted with an eigenvalues over 1. Based on theoretical expectations, fourth factors explaining the largest percentage of variance are retained. The largest percentage of variance explains by the first component and is statistically significant according to the Guttman-Kaiser criterion (it encompasses 19.276% of the total variance, $\Lambda=8.481$). The Scree plot shows that the largest percentage of variance explains four dimensions.

Table 1. Structure for the four-factor exploratory factor solution

Items	Structure Matrix			
	Factor 1	Factor 2	Factor 3	Factor 4
a35	0.712			
a21	0.706			
a36	0.633			-0.325
a18	0.626			
a28	0.609		0.314	
a4	0.580			
a29	0.571			
a2	0.560			

a37	0.549			
a41	0.549	.306		
a26	0.547			
a23	0.539	-.392		
a12	0.536			
a34	0.528			
a30	0.522			
a31	0.515		0.381	-0.346
a39	0.507			-0.389
a9	0.507			
a33	0.504			-0.337
a11	0.498			0.324
a22	0.494	-0.333		
a40	0.479			
a6		0.661		
a42		0.661		
a10		0.616	0.409	
a24		0.582	0.373	
a3		0.545		0.390
a15		0.519	-0.354	0.399
a13		-0.418		
a25		-0.417	-0.375	
a32		0.415		
a16	0.393		-0.431	
a19			0.364	
a8	0.351		-0.376	0.540
a43	0.478			
a27				
a5	0.431			
a7		-0.366		
a20		0.301		
a14				
a17				
a1	0.342			
a38		0.342	0.387	
a44	0.304		0.361	

Insight into the structure matrix suggested that the contents of four extracted dimensions are not in accordance with expectations (Table 1). Manifest and Test Anxiety formed factor 1. Factor 2 included all items of the Social Desirability.

Table 2. *Descriptive Statistics*

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Psychoticism-Normality	2.00	15.00	8.100	3.316	0.207	-.866
Extraversion-Introversion	0.00	21.00	14.567	4.309	-1.083	1.566
Neuroticism-Emotional stability	1.00	23.00	12.483	5.425	-0.074	-0.879
Lay scale	2.00	19.00	11.467	4.189	-0.076	-0.612
Neuroticism	10.00	50.00	28.242	9.285	-0.113	-0.636
Extraversion	11.00	50.00	39.133	7.726	-1.028	1.274
Consientiousness	11.00	50.00	33.183	7.142	-0.098	0.239
Aggressiveness	12.00	47.00	32.050	7.756	-0.443	0.107
Openness to experience	11.00	50.00	34.542	8.723	-0.534	-0.191
Positive Valence	10.00	50.00	34.058	8.828	-0.121	0.039
Negative Valence	10.00	50.00	25.033	8.535	0.420	-0.253
Test anxiety	15.00	45.00	30.700	8.008	-0.110	-1.031
Manifest anxiety	13.00	38.00	24.658	6.438	0.063	-0.787
Social Desirability	9.00	27.00	16.642	4.236	0.456	-0.415
School Dissatisfaction	7.00	21.00	12.800	3.145	0.295	-0.702

It was found positive and moderate correlation between the Test Anxiety and Manifest Anxiety ($r=0.645$, $p<0.001$). Positive correlates of the School Dissatisfaction were Test Anxiety and Manifest Anxiety, and negative correlate was Social Desirability (Table 3). The results showed that Social Desirability was not a good indicator of school anxiety.

Table 3. *Intercorrelation between dimensions of school anxiety*

	Test Anxiety	Manifest Anxiety	Social Desirability	School Dissatisfaction
Test anxiety	1	0.645***	0.155	0.376***
Manifest anxiety		1	0.004	0.417***
Social Desirability			1	-0.229*
School Dissatisfaction				1

*** $p<0.001$; * $p<0.05$

The correlation pattern between the PEN and the VP+2 models is in line with expectations (a good convergent validity). Positive correlates of the Psychoticism-Normality were Neuroticism, Aggressiveness and Negative Valence, and negative correlate was Consientiousness (Table 4). It was found that positive correlates of the Extraversion-Introversion were Extraversion, Consientiousness, Openness to experience and Positive Valence, and negative corelates was Neuroticism. Positive correlates of the Neuroticism-Emotional Stability were Neuroticism and Aggressiveness, and negative correlate were Consientiousness and Positive Valence. It was found that positive correlates of the Lay Scale was Consientiousness, and negative corelates were Aggressiveness and Negative Valence.

Table 4. Correlation between personality traits of the PEN and the VP+2 models

VP+2 model	Personality traits of PEN model			
	Psychoticism-Normality	Extraversion-Introversion	Neuroticism-Emotional stability	Lay scale
Neuroticism	0.242**	-0.223*	0.614***	-0.171
Extraversion	-0.094	0.567***	-0.141	-0.032
Conscientiousness	-0.368***	0.185*	-0.187*	0.503***
Aggressiveness	0.307**	0.151	0.322***	-0.338***
Openness to experience	-0.125	0.462***	0.035	0.004
Positive Valence	0.065	0.468***	-0.185*	-0.173
Negative Valence	0.620***	0.113	0.060	-0.517***

*** $p < 0.001$; ** $p < 0.001$; * $p < 0.05$

The results of correlation analysis showed that positive correlate of the Test Anxiety and Manifest Anxiety was Neuroticism (PEN and VP+2), and negative correlates were Extraversion (PEN and VP+2) and Positive Valence (Table 5). Positive correlates of the Social Desirability were Lay Scale and Conscientiousness, and negative correlates were Psychoticism, Aggressiveness and Negative Valence. It was found that positive correlates of the School Dissatisfaction were Neuroticism (PEN and VP+2) and Aggressiveness, and negative correlates were Lay Scale, Extraversion (VP+2), Conscientiousness and Positive Valence. The higher correlation was between Neuroticism (PEN) and Manifest Anxiety ($r=0.709$, $p < 0.001$).

Table 5. Correlation between personality traits of the PEN and the VP+2 models and dimensions of school anxiety

Personality traits	Dimension of school anxiety			
	Test anxiety	Manifest anxiety	Social Desirability	School Dissatisfaction
Psychoticism-Normality	0.066	-0.009	-0.248**	0.137
Extraversion-Introversion	-0.324***	-0.196*	-0.165	-0.051
Neuroticism-Emotional stability	0.509***	0.709***	-0.154	0.399***
Lay scale	0.028	0.064	0.404***	-0.304**
Neuroticism	0.392***	0.422***	-0.087	0.224*
Extraversion	-0.233*	-0.269***	-0.021	-0.299**
Conscientiousness	-0.155	-0.005	0.294**	-0.420***
Aggressiveness	-0.017	0.039	-0.251**	0.198*
Openness to experience	-0.172	0.028	-0.144	-0.161
Positive Valence	-0.283**	-0.301**	-0.058	-0.214*
Negative Valence	-0.057	-0.160	-0.208*	0.132

*** $p < 0.001$; ** $p < 0.001$; * $p < 0.05$

The result of hierarchical regression analysis showed that personality traits of PEN and the VP+2 models were statistically significant predictors of dimensions

of school anxiety. Two blocks of dimension prediction the Test Anxiety were statistically significant, block 1 ($R=0.599$, $R^2=0.359$, $F=16.088$, $p<0.001$) and block 2 ($R=0.622$, $R^2=0.387$, $F=6.207$, $p<0.001$). Results showed that dimensions in block 1 (PEN model) explained 35.9% of variance, and dimensions in block 2 (PEN and VP+2 models both) explained 38.7% of variance (Table 6). In block 1, higher scores on the Test Anxiety were predicted by lower scores on the dimension Extraversion-Introversion ($\beta=-0.294$, $p<0.001$) and higher scores on the dimension Neuroticism-Emotional stability ($\beta=0.504$, $p<0.001$). In block 2, higher scores on the Test Anxiety were predicted by lower scores on the dimension Extraversion-Introversion ($\beta=-0.262$, $p<0.01$) and higher scores on the dimension Neuroticism-Emotional stability ($\beta=0.541$, $p<0.001$).

Table 6. Personality traits of the PEN and the VP+2 models as predictors of the Test Anxiety

	Model	β	p	Model Summary
Block 1	Psychoticism-Normality	0.063	0.468	R=0.599
	Extraversion-Introversion	-0.294	0.000***	
	Neuroticism-Emotional stability	0.504	0.000***	R ² =0.359
	Lay scale	0.103	0.238	
Block 2	Psychoticism-Normality	0.067	0.512	R=0.622
	Extraversion-Introversion	-0.262	0.008**	
	Neuroticism-Emotional stability	0.541	0.000***	R ² =0.387
	Lay scale	0.114	0.271	
	Neuroticism	0.044	0.686	
	Extraversion	0.070	0.553	
	Conscientiousness	-0.081	0.456	
	Aggressiveness	-0.189	0.072	
	Openness to experience	-0.066	0.521	
	Positive Valence	0.028	0.832	
Negative Valence	0.018	0.889		

Model 1: PEN model; Model 2: PEN and VP+2 models; *** $p<0.001$; ** $p<0.01$

It was found that the two models of dimension prediction the Manifest Anxiety were statistically significant, block 1 ($R=0.743$, $R^2=0.552$, $F=35.422$, $p<0.001$) and block 2 ($R=0.782$, $R^2=0.612$, $F=15.505$, $p<0.001$). Results showed that dimensions in block 1 (PEN model) explained 55.2% of variance, than dimensions in block 2 (PEN and VP+2 models both) explained 61.2% of variance (Table 7). In block 1, higher scores on the Manifest Anxiety were predicted by lower scores on the dimension Extraversion-Introversion ($\beta=-0.153$, $p<0.05$) and higher scores on the dimension Neuroticism-Emotional stability ($\beta=0.724$, $p<0.001$). In block 2, higher scores on the Manifest Anxiety were predicted by higher scores on the dimension Neuroticism-Emotional stability ($\beta=0.697$, $p<0.001$).

Table 7. Personality traits of the PEN and the VP+2 models as predictors of the Manifest Anxiety

	Model	β	p	Model Summary	
Block 1	Psychoticism-Normality	-0.015	0.833	R=0.743	
	Extraversion-Introversion	-0.153	0.016*		
	Neuroticism-Emotional stability	0.724	0.000***	R ² =0.552	
	Lay scale	0.143	0.050		
Block 2	Psychoticism-Normality	0.079	0.332	R=0.782	
	Extraversion-Introversion	-0.095	0.220		
	Neuroticism-Emotional stability	0.697	0.000***		
	Lay scale	0.023	0.778		
	Neuroticism	0.010	0.904		
	Extraversion	-0.185	0.050		
	Conscientiousness	0.124	0.154		
	Aggressiveness	-0.055	0.509		R ² =0.612
	Openness to experience	0.158	0.057		
	Positive Valence	-0.074	0.477		
	Negative Valence	-0.134	0.194		

Model 1: PEN model; Model 2: PEN and VP+2 models; *** $p < 0.001$; * $p < 0.05$

Two blocks of dimension prediction the Social Desirability were statistically significant, block 1 ($R=0.442$, $R^2=0.196$, $F=6.997$, $p < 0.001$) and block 2 ($R=0.511$, $R^2=0.261$, $F=3.461$, $p < 0.001$). Results showed that dimensions in block 1 (PEN model) explained 19.6% of variance, than dimensions in block 2 (PEN and VP+2 models both) explained 26.1% of variance (Table 8). In block 1, higher scores on the Social Desirability were predicted by higher scores on the Lay scale ($\beta=0.344$, $p < 0.01$). In block 2, higher scores on the Social Desirability were predicted by lower scores on the dimension Openness to experience ($\beta=-0.255$, $p < 0.05$) and by higher scores on the Lay scale ($\beta=0.289$, $p < 0.05$).

Table 8. Personality traits of the PEN and the VP+2 models as predictors of the Social Desirability

	Model	β	p	Model Summary	
Block 1	Psychoticism-Normality	-0.069	0.471	R=0.442	
	Extraversion-Introversion	-0.141	0.098		
	Neuroticism-Emotional stability	-0.105	0.216	R ² =0.196	
	Lay scale	0.344	0.001**		
Block 2	Psychoticism-Normality	-0.125	0.264	R=0.511	
	Extraversion-Introversion	-0.140	0.191		
	Neuroticism-Emotional stability	-0.010	0.932		
	Lay scale	0.289	0.012*		
	Neuroticism	0.021	0.860		
	Extraversion	0.092	0.477		
	Conscientiousness	0.193	0.108		
	Aggressiveness	-0.147	0.200		R ² =0.261
	Openness to experience	-0.255	0.026*		
	Positive Valence	0.078	0.588		
	Negative Valence	0.164	0.247		

Model 1: PEN model; Model 2: PEN and VP+2 models; *** $p < 0.001$;
** $p < 0.01$; * $p < 0.05$

It was found that the two models of dimension prediction the School Dissatisfaction were statistically significant, block 1 ($R=0.476$, $R^2=0.226$, $F=8.411$, $p<0.001$) and block 2 ($R=0.591$, $R^2=0.350$, $F=5.276$, $p<0.001$). Results showed that dimensions in block 1 (PEN model) explained 22.6% of variance, than dimensions in block 2 (PEN and VP+2 models both) explained 35.0% of variance (Table 9). In block 1, higher scores on the School Dissatisfaction were predicted by lower scores on the dimension Lay Scale ($\beta=-0.277$, $p<0.01$) and higher scores on the dimension Neuroticism-Emotional stability ($\beta=0.362$, $p<0.001$). In block 2, higher scores on the School Dissatisfaction were predicted by higher scores on the dimension Neuroticism-Emotional stability ($\beta=0.384$, $p<0.01$) and by lower scores on the dimension Extraversion ($\beta=-0.263$, $p<0.05$) and the Conscientiousness ($\beta=-0.248$, $p<0.05$).

Table 9. Personality traits of the PEN and the VP+2 models as predictors of the School Dissatisfaction

	Model	β	p	Model Summary
Block 1	Psychoticism-Normality	-0.037	0.693	R=0.476
	Extraversion-Introversion	-0.060	0.469	
	Neuroticism-Emotional stability	0.362	0.000***	R ² =0.226
	Lay scale	-0.277	0.004**	
Block 2	Psychoticism-Normality	-0.073	0.488	R=0.591
	Extraversion-Introversion	0.124	0.215	
	Neuroticism-Emotional stability	0.384	0.001**	
	Lay scale	-0.190	0.076	
	Neuroticism	-0.135	0.231	R ² =0.350
	Extraversion	-0.263	0.032*	
	Conscientiousness	-0.248	0.029*	
	Aggressiveness	0.008	0.940	
	Openness to experience	-0.023	0.832	
	Positive Valence	0.001	0.996	
Negative Valence	-0.019	0.884		

Model 1: PEN model; Model 2: PEN and VP+2 models; *** $p<0.001$;
** $p<0.01$; * $p<0.05$

Discussion and conclusion

The first aim of the present study was to test construct validity of the AFS scale on a sample of high school students. Existing measures of RF are four-dimensional (Wieczerkowski et al., 1973, as cited in Vulić-Prtorić & Sorić, 2002). The primary finding of our study is that the four-factor model proposed by Wieczerkowski et al., (1973, as cited in Vulić-Prtorić & Sorić, 2002) was not confirmed. In accordance with findings of Vulić Prtoric and Soric (2002), our results also showed that School Dissatisfaction factor wasn't confirmed. However, the dimensions of Test Anxiety and Manifest Anxiety share the range of the same factor (first). It was found positive

and moderate correlation between the Test Anxiety and Manifest Anxiety. Only the structure of Social Desirability was confirmed.

The correlation pattern between the PEN and VP+2 models is in line with expectations and supports a good convergent validity. The highest positive and negative correlations are obtained between Neuroticism-Emotional stability and Neuroticism, Extraversion-Introversion and Extraversion. Positive correlates of the Psychoticism-Normality were Neuroticism, Aggressiveness and Negative Valence, and negative correlate was Conscientiousness. The result showed that did not confirmed that psychoticism factor has been used in place of the domains of Agreeableness (Eysenck, 1992). It was found that positive correlates of the Extraversion-Introversion were Extraversion, Conscientiousness, Openness to experience and Positive Valence, and negative correlate was Neuroticism. Positive correlates of the Neuroticism-Emotional Stability were Neuroticism and Aggressiveness, and negative correlates were Conscientiousness and Positive Valence. It was found that positive correlates of the Lay Scale was Conscientiousness, and negative correlates were Aggressiveness and Negative Valence. The direction of obtained correlations is expected. Results of one Serbian research (Colovic & Mitrovic, 2010), showed that first promax dimension consisted of Extraversion and Openness from the BFI and the VP+2 models, Impulsivity and Socialbility from the Zuckerman-Kuhlman model and Positive Valence from the VP+2 model. The second factor consisted of Conscientiousness from the BFI and the VP+2 models and Activity from the Zuckerman-Kuhlman model. The third factor consisted of Aggressiveness from the VP+2 and the Zuckerman-Kuhlman model and Negative Valence from the VP+2 model. The fourth factors consisted of dimension of Neuroticism (the BFI, the VP+2 and the Zuckerman-Kuhlman models).

The results of correlation analysis showed that positive correlate of the Test Anxiety and Manifest Anxiety were Neuroticism-Emotional Stability, Neuroticism, and negative correlates were Extraversion-Introversion, Extroversion and Positive Valence. Positive correlates of the Social Desirability were Lay Scale and Conscientiousness, and negative correlates were Psychoticism, Aggressiveness and Negative Valence. It was found that positive correlates of the School Dissatisfaction were Neuroticism-Emotional Stability, Neuroticism and Aggressiveness, and negative correlates were Lay Scale, Extraversion-Introversion, Extroversion, Conscientiousness and Positive Valence. Results are in accordance with research of Akram and his colleagues (2019). Extroverted persons are characterized by a low level of cognitive activation, so they need more stimuli, resulting in greater behavioral activity, while introverted persons exhibit opposite behavior and affectivity, characterized by a high level of cognitive excitement, therefore they avoid extreme stimulation resulting in behavioral inhibition (Smederevac et al, 2010). Studies show that the combination of a high scores on the Neuroticism and low scores on the Extraversion were a predictor of General Anxiety, Fear of failure and Depression on a student sample (Gershuny & Sher, 1998, Komarraju, Karau & Schmeck, 2009, Matsudaira & Kitamura, Middeldorp et al., 2006, as cited in Velikic

et al., 2014). Expected high positive correlation between Neuroticism-Emotional stability and Manifest Anxiety was confirmed (Fulgosi, 1981).

The results show that PEN model, comparing with VP+2 model has higher explanatory power when it comes to prediction of the dimensions of school anxiety among high school students. The Neuroticism-Emotional Stability is the most powerful predictor of the Manifest Anxiety.

The result of hierarchical regression analysis showed that personality traits of PEN and VP+2 models were statistically significant predictors of dimensions of the Test Anxiety. Percentage of explained variance of Test anxiety, which can be attributed to the tested set of predictors in block 1 was 35.9%, and in block 2 was 38.7% variance. Characteristics of the PEN model explain 35.9% of variance of Test anxiety in whole, even if the influence of the set of VP+2 variables was statistically removed. The Test Anxiety was predicted by lower scores on the dimension Extraversion-Introversion and higher scores on the dimension Neuroticism-Emotional stability, which is in accordance with prior assumptions (Asgari, 2002; Khodamoradi & Rafiee, 2016). These results are supported by research of Vujicic i Randjelovic (2017), which pointed out that Neuroticism (in positive direction) and Extraversion (in negative direction) of BIG Five model were statistically significant predictors of Anxiety. However, results of Vujicic and Randjelovic (2017) refer to the better explanatory power of PEN model, comparing with BIG Five, due to lower linear correlation.

It was found that the two models of dimension predicting the Manifest Anxiety were statistically significant. Percentage of explained variance of Manifest Anxiety in block 1 which can be attributed to tested set of predictors was 55.2%, while in block 2 it was 61.2% of variance. Characteristics of the PEN model explain 55.2% of variance of Manifest Anxiety in total, even if the influence of the set of VP+2 variables was statistically removed. Higher scores on the Manifest Anxiety were predicted by lower scores on the dimension Extraversion-Introversion and higher scores on the dimension Neuroticism-Emotional stability, which is in accordance with prior assumptions (Akram et al., 2019; Asgari, 2002; Vujicic & Randjelovic, 2017).

Personality traits of PEN and VP+2 models were statistically significant predictors of dimensions of the Social Desirability. Percentage of explained variance of Social Desirability in block 1 which can be attributed to tested set of predictors was 19.6%, while in block 2 it was 26.1% of variance. Characteristics of the PEN model explain 19.6% of variance of Social Desirability in total, even if the influence of the set of VP+2 variables was statistically removed.

Higher scores on the Social Desirability were predicted by lower scores on the dimension Openness to experience and by higher scores on the Lay scale, which suggests that adolescents who have a tendency for social acceptance and who are not intellectually curious, but also persons of strong will, scrupulous and accurate, are more likely to have socially desirable behaviour.

The result showed that personality traits of PEN and VP+2 models were statistically significant predictors of dimensions of the School Dissatisfaction.

Percentage of explained variance of School Dissatisfaction in total in block 1, which can be attributed to tested set of predictors was 22.6%, while in block 2 it was 35.0% of variance. Characteristics of the PEN model explain 22.6% of variance of School Dissatisfaction in total, even if the influence of the set of VP+2 variables was statistically removed. Higher scores on the School Dissatisfaction were predicted by lower scores on the dimension Lay Scale, Extraversion and the Conscientiousness and higher scores on the dimension Neuroticism-Emotional stability. It was found that highschool students with a highly represented trait of Neuroticism and those who are not inclined to give preferential answers, as well as those who are targeted to a number of goals that attain superficial, non-systematic and with a high degree of spontaneity, have higher dissatisfaction with the school. This result is in accordance with research of Kotov and colleagues (2010), which confirmed negative correlation of Anxiety with Emotional Stability and Conscientiousness. Alincic (Alinčić, 2013) found that low Extraversion, Neuroticism and Openness to Experience from VP+2 model are significant predictors of Social Anxiety, which supports the findings of our research.

Adolescence is often characterised as a period of internal turmoil and external reckless, when the adolescents have to contend with many developmental problems associated with this unique transitional stage (11 to 21 years). School anxiety can cause a wider consequences such as negative impact on growth of social, emotional and behavioral of high school students and effect on student's feelings about themselves and the school. The obtained results confirmed the starting research goal of the relationship between personality traits and school anxiety among adolescents. Future researches of this relationship should include other models of personality traits, and check their eclectic power. The important finding of this research is that other instruments for measuring school anxiety should be used, since the AFS did not show good validity. The scale of School Dissatisfaction did not have satisfactory reliability, nor is its structure was confirmed. Results confirmed moderate convergent validity of the VP+2 model and the congruence of its dimensions with analog dimensions from the PEN model. In the end, we can conclude that the period of adolescence is a very important period for the development of young people, which requires greater involvement of school psychologists in counseling with young people in order to reduce anxiety.

References

- Achenbach, T. M., & Edelbrock, C. (1978). The classification of child psychopathology: A review and analysis of empirical efforts. *Psychological Bulletin*, 85,1275-1301.
- Akram, U., Gardani, M., Akram, A. & Allen, S. (2019). Anxiety and depression mediate relationship between insomnia symptoms and the personality traits of conscientiousness and emotional stability. *Heliyon*, 5(6). Retrived 07.07.2019. on World Veb <https://doi.org/10.1016/j.heliyon.2019.e01939>.

- Alinčić, M. (2013). Osobine ličnosti i asertivnost kao prediktori samopoštovanja i socijalne anksioznosti. *Primenjena psihologija*, 6(2), 139-154.
- Almagor, M., Tellegen, A. & Waller, N. G. (1995): The Big Seven Model: A cross-cultural replication and further exploration of the basic dimensions of natural language trait descriptors. *Journal of Personality and Social Psychology*, 69, 300–307.
- Asgari, Y. (2002). *Relationship between anxiety and other personality traits among students in a Malaysian University*. Master thesis. University Putra Malaysia.
- Aunola, K., & Nurmi, J. (2005). The role of parenting styles in children's problem behavior. *Child Development*, 76(6), 1144-1159.
- Brković, A. D. (2011). *Razvojna psihologija*. Čačak: Svetlost.
- Clark, L. A., Watson, D. & Mineka, S. (1994). Temperament, personality, and the mood and anxiety disorders. *Journal of Abnormal Psychology*, 103, 103-116.
- Colovic, P. & Mitrovic, D. (2010). Pri puta pet osobina ličnosti...plus dve. 58. *Naučno-stručni skup psihologa Srbije. Zdravo društvo – Zdrav pojedinac*, knjiga rezimea, str. 64-65.
- Costa, P. T. Jr. & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, 13, 653-665.
- Čolović, P., Smederevac, S. & Mitrović, D. (2014). Velikih pet plus dva: validacija skraćene verzije. *Primenjena psihologija*, 7 (Dodatak), 227-245.
- Đurić, Đ. (1997). *Psihologija i obrazovanje*. Sombor: Učiteljski fakultet.
- Eisenberg, N., Cumberland, A., Spinrad, T. L., Fabes, R. A., Shepard, S. A., Reiser, M., Murrphy, B. S., Losoya, S. H. & Guthrie, I. K. (2001). The relations of regulation and emotionality to children's externalizing and internalizing problem behavior. *Child Development*, 72, 1112–1134.
- Endler, N. S., Hunt, J. M., & Rosenstein, A. J. (1962). An S-R inventory of anxiousness. *Psychological Monographs*, 536, 1–33.
- Endler, N. S., & Okada, M. (1975). A multidimensional measure of trait anxiety: The S-R Inventory of General Trait Anxiousness. *Journal of Consulting and Clinical Psychology*, 43, 319–329.
- Eysenck, H. J. (1953). *The structure of human personality*. London: Methuen.
- Eysenck, H. J. (1992). Four ways five-factors are not basic. *Personality and Individual Differences*, 13, 667-673.
- Eysenck H. J., & Eysenck S. B. G. (1975). *Manual of the Eysenck Personality Questionnaire (adult and junior)*. London: Hodder & Stoughton.
- Fenz, W. D., & Epstein, S. (1965). Manifest anxiety: unifactorial or multifactorial composition. *Perceptual and Motor Skills*, 20, 773–780.
- Fulgosi, A. (1997). *Psihologija ličnosti – IV izdanje*. Zagreb: Školska knjiga.
- Goldberg, L. R. (1971). A historical survey of personality scales and inventories. In: McReynolds, P. (Ed.). *Advances in psychological assessment*, 2. Palo Alto, CA: Science and Behavior Books. 293-336.
- Gramstad, T. O., Gjestad, R., & Haver, B. (2013) Personality traits predict job stress, depression and anxiety among junior physicians. *BMC Medical Education*, 13, 1-19.
- Han, H.R. (2009). Measuring anxiety in children: a methodological review of the literature. *Asian Nursing Research*, 3(2), 49-62.

- Hancock, D. R. (2001). Effects of test anxiety and evaluation threat on students' achievement and motivation. *The Journal of Educational Research*, 94(5), 284-291.
- Hedrih, V. (2006). Bazična struktura ličnosti i profesionalna interesovanja učenika. *Magistarski rad*. Beograd: Filozofski fakultet.
- Hembree, R. (1988). Correlates, Causes, Effects, and Treatment of Test Anxiety. *Review of Educational Research*, 58(1), 47-77.
- Hettema, J. M., Neale, M. C., Myers, J. M., Prescott, C. A., & Kendler, K. S. (2006). A population-based twin study of the relationship between neuroticism and internalizing disorders. *American journal of Psychiatry*, 163, 857-864.
- Leary, M. R. (1983). Social anxiousness: The construct and its measurement. *Journal of Personality Assessment*, 47(1), 66-75.
- Leary, M. R., & Kowalski, R. M. (1995). *Social anxiety*. New York: Guilford Press.
- Logue, M. B. (2001). Emotional Problems of Adolescents. In; Walker, C.E. & Roberts, M. C. (Eds.), *Handbook of Clinical Psychology* (pp.638-656). New York: John Wiley and sons.
- Khodamoradi, S. & Rafiee, S. (2016). Investigation of the relationship between personality traits, self-efficacy and internal locus of control with test anxiety the high school students. *International Journal of Humanities and Cultural Studies*, 2356-5926. Retrived 09.07.2019. on World Veb: <http://www.ijhcs.com/index.php/ijhcs/index>
- Knežević, G., Džamonja, T. i Đurić-Jočić, D. (2004). *Petofaktorski model ličnosti*. Beograd: Centar za primenjenu psihologiju.
- Kotov, R., Gamez, W., Schmidt, F. & Watson, D., (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: a meta-analysis. *Psychological Bulletin*. 136, 768–821.
- Međedović, J. (2009). Bazična struktura ličnosti i kriminalitet. *Primenjena psihologija*, 2(3), 339-367.
- Merrell, K.W. (2008). *Helping students overcome depression and anxiety: A practical guide*, (2nd ed). The Guilford Press: Guilford, New York, N.Y.
- Marić, J. (2005). *Klinička psihijatrija*. Beograd: Medicinski fakultet.
- Marić, M. (2010). Osobine ličnosti, životni događaji i anksioznost adolescenata. *Primenjena psihologija*, 1, 39-57.
- Mokashi, M. V. (2007). *Correlates of anxiety and scholastic achievement of residential school students*. Master's Thesis. Dharwad, Karnataka State, India: University of agricultural sciences.
- Nešić, B. i Radomirović, V. (2000). *Osnovi razvojne psihologije*. Jagodina: Učiteljski fakultet.
- Ninčević, M. (2009). Izgradnja adolescentskog identiteta u današnje vreme. *Odgojne znanosti*, 11(1), 119-141.
- Rana, R.A. & Malmood, N. (2010). The relationship between test anxiety and academic achievement. *Bulletion of Education and Research*, 32(2), 63-74.
- Reynolds, C. R., & Richmond, B.O. (1978). What I think and feel: A revised measure of children's manifest anxiety. *Journal of Abnormal Child Psychology*, 6, 271–280.
- Smederevac, S. (2002). *Govor i ličnost ili govor ličnosti*. Beograd: Zadužbina Andrejević.

- Smederevac, S., Mitrović, D. i Čolović, P. (2010). *Velikih pet plus dva (VP+2) – primena i interpretacija*. Beograd: Centar za primenjenu psihologiju.
- Spielberger, C.D. (1973). *Manual for the State-Trait Anxiety Inventory for Children*. Palo Alto, CA: Consulting Psychologists Press.
- Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Syokwaa, S. K.A., Aloka, P.J.O. & Ndunge, S.N.F. (2014). The Relationship between Anxiety Levels and Academic Achievement among Students in Selected Secondary Schools in Lang'ata District, Kenya. *Journal of Educational & Social Research*, 4(3), 403-413.
- Tovilović, S., Novović, Z., Mihić, Lj & Jovanović, V. (2009). The role of trait anxiety in induction of state anxiety. *Psihologija*, 42(4), 491-504.
- Velikić, D., Knežević, J. i Rodić, N. (2014). Relacije nekih osobina ličnosti i karakteristika sportista sa sportskom anksioznošću. *SportLogia*, 10(11), 35-43.
- Vujcic, M. M. & Randjelovic, D. (2017). Personality traits as predictors of depression, anxiety and stress with secondary school students of final years. *Zbornik radova Filozofskog fakulteta u Prištini*. 47(3), 217-237.
- Vulić-Prtorić, A. i Sorić, I. (2002). Skala anksioznosti za djecu – AFS. U: Lacković-Grgin, K., Proroković, A., Čubela, V. i Penezić, Z. (Ur.). *Zbirka psiholoških skala i upitnika*, 1, 123-129.
- Wiggins, J. (1994). *The five-factor model of personality: Theoretical perspectives*. New York, NY: Guilford.

Maja Stanojević Ristić
Danica Vukić

PEN ILI VP+2 MODEL ZA PREDVIĐANJE ŠKOLSKE ANKSIOZNOSTI

Sažetak

Cilj istraživanja je bio da se utvrdi koji model osobina ličnosti (PEN ili VP+2) bolje predviđa školsku anksioznost, kao i da utvrdi konstruktivnu validnost AFS skale i konvergentnu validnost Pen i VP+2 modela. Istraživanje je sprovedeno na uzorku od 120 srednjoškolaca, starosti 18-19 godina, 71 (59,2%) muškaraca i 49 (40,8%) žena. Primenjeni su sledeći instrumenti: Ajzenkov upitnik ličnosti (Eisenck & Eisenck, 1975), kratka verzija upitnika Velikih pet plus dva (VP+2-70; Čolović i sar., 2014) i AFS skala (Vulić Prtorić i Sorić, 2002). Rezultati hijerahijske regresione analize su pokazali da su dva bloka predviđanja Ispitne anksioznosti statistički značajna, blok 1 ($R=0.599$, $R^2=0.359$, $F=16.088$, $p<0.001$) i blok 2 ($R=0.622$, $R^2=0.387$, $F=6.207$, $p<0.001$.) Utvrđeno je da su oba modela predviđanja Manifestne anksioznosti statistički značajna, blok 1 ($R=0.743$, $R^2=0.552$, $F=35.422$, $p<0.001$) i blok 2 ($R=0.782$, $R^2=0.612$, $F=15.505$, $p<0.001$). Najveći parcijalni doprinos predviđanju Ispitne anksioznosti ($\beta=0.504$, $p<0.001$), Manifestne anksioznosti ($\beta=0.724$, $p<0.001$) i Nezadovoljstva

školom ($\beta=0.362$, $p<0.001$) ima dimenzija Neuroticizam-emocionalna stabilnost. Dva bloka predviđanja Socijalne poželjnosti su statistički značajna, blok 1 ($R=0.442$, $R^2=0.196$, $F=6.997$, $p<0.001$) i blok 2 ($R=0.511$, $R^2=0.261$, $F=3.461$, $p<0.001$). Najveći parcijalni doprinos predviđanju Socijalne poželjnosti ($\beta=0.344$, $p<0.01$) ima skala Laganja. Dobijeno je da su oba modela predviđnja Nezaovoljstva školom statistički značajna, blok 1 ($R=0.476$, $R^2=0.226$, $F=8.411$, $p<0.001$) i blok 2 ($R=0.591$, $R^2=0.350$, $F=5.276$, $p<0.001$). Rezultati upućuju na bolju prediktivnu moć EPQ modela.

Ključne reči: osobine ličnosti, školska anksioznost, PEN model, VP+2 model, srednjoškolci.

PERSONALITY AND SUBJECTIVE AGE IN EMERGING ADULTHOOD: COMPARISONS OF TWO GROUPS OF STUDENTS

Abstract

Our research is focused on the age of so called "emerging adulthood" – a phase of development between adolescence and adulthood. The purpose of the study is to investigate the way in which subjective age is related to personality traits during this period and to examine similarities and differences between students of psychology and medicine. The total of 148 university students answered questions about their subjective age (Kastenbaum, Derbin, Sabatini, & Artt, 1972) and their personality traits (Mini IPIP, Karabeliova, Petrov, Milanov & Ivanova, 2016). The participants were 18–27 years old ($M=20, 80$; $SD=1,195$). 53 of them were men and 95 – women. The results across both groups of students replicate the finding of researchers in other countries that at this life stage the trait of *conscientiousness* is related with feeling older than one's chronological age. Compared to medical students, psychology students scored higher on *agreeableness* and *openness to experiences*. No statistical significant differences were found between the two groups in terms of their subjective age. Given the developmental tasks of the life period, we assume that the link between *conscientiousness* and the higher subjective age reflects an integration of self-regulation into the temporal dimension of personal identity. The differences, found between the two groups of students, show that the young people do not form a homogenous group and the respondents' education and professional orientation should be taken into account in future research. More large and demographically diverse samples are also needed.

Key words: emerging adulthood, transition to adulthood, personality traits, subjective age, academic majors

Introduction

Human age is a basic element in social structure and the individual development. Age differentiation of life course results from the interaction between Homo Sapiens' biological life cycle and the socio-cultural timetable of the key life events in a particular historical context. With the changing context of human development (scientific and technological progress, economic prosperity/crisis, access and opportunities for education, employment rate, health care), this

¹ corresponding author dahristova@phls.uni-sofia.bg

interaction is in a constant update (Christova, 2017). Nowadays people tend to live longer, while the time span and adaptive importance of preparation periods for adult development is increasing.

The present study is focused on the emerging adulthood – the period between 18–25/29 years whose pivotal developmental mission is to grow an adolescent into adult. The term is coined by J. Arnett (Arnett, 2000) in order to reflect history-graded cohort differences in the ways of experiencing and coping with developmental tasks of the transition to adulthood: respective to previous generations, a raising number of young people tend to delay their “settling down”. They take longer to finish education, leave home, enter a career and take other adult-like decisions such as starting a family and raising children. These demographic shifts have shaped the late teens through twenties into a distinct life stage different both from adolescence and adulthood.

Theoretical background

Subjectively felt as an “in between” period when a person is no more a child, but is not yet self-defined as an adult, the emerging adulthood is not a universal life stage. It is a historical and socio-cultural construction impacted by recent trends pertinent to industrial and post-industrial societies. Psychosocially, it plays the role of the “novice phase” (Levinson, Darrow, Levinson, Klein, & McKee, 1977) – preparation for entry into adult world, learning to navigate multiple life transitions in order to build a life structure that enable the young person to set on the path to an independent and productive life. The prolonged transition to adulthood represents “a psychosocial moratorium during which the young adult through free role experimentation may find a niche in some section of his society, a niche which is firmly defined and yet seems to be uniquely made for him” (Erikson, 1968, p. 156). For young people who choose the academic path of higher education, this moratorium is permitted and structured by society and opens space and time for education, socialization and experimentation.

Free from long-term commitment and responsibilities, emerging adults have a unique opportunity to explore their self in key life areas: work and career, love and other significant relations, worldviews and values. Developing a more definite identity that coordinates personal aspirations and the standards of adult world is a major normative challenge.

Our interest in personal identity of emerging adults is oriented towards its temporal dimension reflected in subjective age: age a person identifies with and experiences oneself as younger/older relative to chronological age. How one conceives himself/herself in terms of the socially relevant category of age is an immanent aspect of the process of psychosocial construction of identity. Defined by Cutler as “age identity” (Cutler, 1982) - a multi-faced generalization about oneself, subjective age is positioned at the phenomenological level of the

individual sense of self. Being a product of integrative processes through which a person reconciles the various effects of his/her lifelong experiences and social comparisons, it expresses the biographical continuity of one's life story.

As an essential component of personal identity, subjective age is a multidimensional construct. Kastenbaum and al. (Kastenbaum et al., 1972) differentiate four dimensions: *feel age*, *look age*, *do age* and *interest age*. *Desired/ideal age* (*What age would you like most to be?*) is also studied (for example, Hubley & Russell, 2009).

Discrepancy between subjective and chronological age is not stable across the lifespan. Adding or taking years of chronological age depends on the life stage and its developmental challenges. Research has identified *an older bias* among adolescents and emerging adults – they usually tend to see themselves as slightly older than their actual age (Guiot, D., 2000; Kotter-Grühn, Kornadt, Stephan, 2016). From a lifespan developmental perspective, this self-enhancing tendency corresponds to young people's striving to convince themselves and others they are already independent grown-ups. The turning point is at about 25 years when the opposite tendency begins to prevail (Galambos, Turner, Tilton-Weaver, 2005). The more people accumulate years, the younger they tend to define themselves (*youthful bias*). Maintaining youthful subjective age in middle and late adulthood is seen as a protective factor in aging process. As an important predictor of physical and mental health, resilience to stress, cognition, personality changes, quality of relationships, social functioning, health behaviors, and even longevity, subjective age is considered a biopsychosocial marker of adult development and aging (Demakakos, Gjonca & Nazroo, 2007; Launeanu & Hubley, 2009; Stephan, Sutin, Terracino, 2018).

Transition to adulthood is "the crucible of personality development" (Roberts & Davis, 2016). Individual self-reflective and self-regulatory skills for coping with developmental challenges are decisive in the contemporary context of pluralistic life course models and more fluid age-related normative prescriptions and expectations (Christova, 2004). The role of personality in shaping subjective age is relatively underexplored in the period of emerging adulthood. In terms of the five-factor model (FFM) of personality traits (McCrae, & Costa, 1987), the trait *conscientiousness* reflects the individual potential for self-control and self-regulation. The trait is considered to be a key to optimal development and success in the most life areas (McCrae & Lockenhoff, 2010). A psychological research has found that *conscientiousness* is negatively correlated with youthful bias in subjective age among young adults (Stephan, Demulier, Terracciano, 2012). This relationship is in line with the finding that as a significant predictor of subjective age, psychosocial maturity is related to feeling older among young adults (Galambos & al., 2005). The role of exposure to age-related stereotypes and the process of social comparison of one's own personality to the personality of different age groups should also be taken into account. Usually, in comparison to older, young adults are perceived stereotypically as being less conscientious

(Haslam & Whelan, 2008). Therefore, feeling slightly older than the peers, conscientious young people may demonstrate more maturity than the “average” member of their age-group.

A number of studies have examined the personality differences in the FFM-personality traits among the students of various academic majors (for a systematic review see Vedel, 2016). *Conscientiousness* is unanimously a significant predictor of academic performance across majors.

A few studies however include both students in psychology and medicine. A study found that compared to students of other majors, both students of medicine and psychology scored higher on *extraversion* and *agreeableness* – two personality dimensions, beneficial for interpersonal communication and collaboration (Lievens, Coetsier, De Fruyt, & De Maeseneer, 2002).

In search for the differences between personality traits of students of psychology and those in other majors, Marrs & al. (Marrs, Barb & Ruggiero, 2007) identified only one statistically significant difference – students of psychology scored higher on *openness to experience*. This is a consistent finding across the studies. Another one is that students of psychology and those of arts usually score higher on *neuroticism* than most other groups (Vedel, *ibid.*).

For medical students, findings about *agreeableness* are inconsistent across studies and it seems that their academic training may impact this trait. In a French study, third-year medical students showed lower scores for *agreeableness* and *openness to experience* compared to their first-year colleagues as a control group (Plaisant, Courtois, Toussaint, Mendelsohn, John & Moxham, 2011). According to these researchers, the decreasing levels of the two personality traits could be explained by the rigorous and demanding process of selection at the end of the first academic year.

The current study

The present study is an attempt to integrate lifespan framework and personality perspective in order to understand how the temporal dimension of the self, reflected in subjective age, interacts with personality profile in the context of the key developmental challenge of transition to adulthood – forming an identity. The purpose of the study is to examine subjective age and personality traits among two groups of students (of psychology and medicine) in the period of emerging adulthood. Our objectives are to identify group similarities/differences in terms of subjective age, personality traits and the way in which subjective age and its dimensions are related to the FFM- traits.

Hypotheses. For both groups we expect:

1. a composite subjective age above the chronological one (Guiot, D., 2000; Kotter-Grühn, Kornadt, Stephan, 2016)
2. a positive correlation between composite subjective age and

conscientiousness (Galambos, & al., 2005; Stephan, Demulier, Terracciano, 2012).

These expectations are based on the fact that psychology and medicine are among the most preferred majors in Bulgaria and enroll students with excellent exam grades.

We expect that students of psychology will have higher scores than medical students on the traits:

3. *Openness to experience*
4. *Agreeableness*
5. *Neuroticism* (Vedel, 2016).

Method

Participants

The study was conducted in December 2017. A total of 148 third-year students, 81 majoring psychology at Sofia University and 67 - medicine at Medical University-Sofia participated in the study. 36 % of them were men, 64% – women. Their age ranged from 18 to 27 years ($M=20, 80$; $SD=1,195$).

Table 1. Distribution of the sample by major and gender

Total n=148	Psychology (n=81)	Medicine (n=67)
Men n=53	n=26	n=27
Women n=95	n=55	n=40

Measures

Subjective age. Subjective age was measured by 5 items about subjective self-evaluation of different age-related aspects: 1. Most of the time I *feel*...; 2. Most of the time I *look*...; 3. My *interests* and *activities* are most like those of...; 4. People who know me *casually* regard me as...; 5. People who know me *very well* regard me as ... (Kastenbaum & al., 1972). Answers was given on 5-point Likert scale from 1 – “Quite a bit younger than most people of my age” to 5 – “Quite a bit older than most people of my age”. Analyses are based on the composite subjective age of the group and on the separate items reflecting different aspects of one’s own age evaluation.

Personality. To measure personality traits, we adopted one of the most popular and widely recognized models of personality – the FFM. In the study, we used the Bulgarian version of the MiNi-IPIP questionnaire (Donnellan, Oswald, Baird, Lucas, 2006; Karabeliova, & al., 2016). It includes 20 items, four for each of the scales representing the five personality dimensions: *extraversion*, *neuroticism*,

openness to experience, agreeableness, and conscientiousness. Each item was rated by participants on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Results

Composite subjective age and subjective age's items

Descriptive statistics for composite subjective age are summarized in Table 1. The mean score is slightly higher than chronological age (on 5-point response scale, the value "3" is "neither younger nor older", i.e. corresponds to actual age). The standard deviation shows that the data are relatively consistent. The mode is even higher than the mean, albeit with little difference. The slightly negative skewness confirms that the participants' subjective age tends to exceed chronological age.

Table 1. Composite age: descriptive statistics

Mean	Median	Mode	SD	Skewness
3.09	3.10	3.40	0.73	-0.195

Descriptive statistics for subjective age's items (Table 2) show that the means for 4 of the 5 items are slightly above the actual age. The only exception is the mean for the item, measuring the *look-age*, self-evaluated as lower in comparison to actual age.

Table 2. Subjective age's items: descriptive statistics

	The most of time I feel...	The most of time I look...	My interests and activities are most like those of...	People who know me casually regard me as...	People who now me very well regard me as...
Mean	3.28	2.67	3.30	3.05	3.14
Median	3.00	3.00	3.00	3.00	3.00
Mode	4	2	3	4	3
SD	1.11	1.01	0.99	1.03	1.07
Skewness	-0.324	0.187	-0.456	-0.359	-0.457

Group differences in the subjective age

On the basis of independent samples t-tests, group and gender differences were found neither in the composite subjective age scores nor in its five aspects

Correlations between composite subjective age and personality traits

Examination of the correlations between composite subjective age and personality traits (Table 3) reveals a strong positive linear link between subjective age and *conscientiousness*. The result backs up previous research (Galambos et al., 2005; Launeanu, 2008; Stephen et al., 2012).

Table 3. Correlations between composite subjective age and personality traits

FFM personality traits	Composite subjective age
Extraversion	-0.035, p=0,677
Conscientiousness	0.347, p<0,001
Agreeableness	0.010, p=0,906
Neuroticism	-0.082, p=0,321
Openness to experience	0.084, p=0,310

Personality traits and the dimensions of the subjective age

Correlations between FFM-traits and the dimensions of subjective age are shown in Table 4. *Conscientiousness* is found to relate significantly to four of the five dimensions of subjective age. The only insignificant correlation is with “my interests and activities” age. The item “my interests and activities” is positively associated with *openness to experience*. A negative linear link is found between *neuroticism* and the item “People who know me *casually* regard me as... ”.

Table 4. Correlations between subjective age’s items and *conscientiousness*

Subj. age	The most of time I feel...	The most of time I look...	My interests and activities are most like those of...	People who know me casually regard me as...	People who now me very well regard me as...
FFM-traits					
Extraversion	0.104 p=0.207	0.069 p=0.403	-0.038 p=0.650	-0.086 p=0.297	0.043 p=0.606
Conscientiousness	0.205 p<0.05	0.259 p=0.001	0.123 p=0.137	0.281 p=0.001	0.339 p<0.001
Agreeableness	-0.057 p=0.494	-0.038 p=0.644	0.104 p=0.209	0.035 p=0.672	-0.001 p=0.995
Neuroticism	0.026 p=0,750	-0.150 p=0,069	0.117 p=0.158	-0.196 p<0.05	-0.083 p=0.316
Openness to experience	0.014 p=0.865	0.059 p=0.479	0.204 p<0,05	0.050 p=0.543	0.119 p=0.150

Group differences in personality traits

On the base of the independent samples t-test, two significant differences are found between personality traits of students majoring psychology and respectively – medicine (Table 5). Compared to medical students, students of psychology scored higher on *agreeableness* and *openness to experience*.

Table 5. Group differences in personality traits

Personality traits	Major Psychology	Major Medicine
Agreeableness t(146) = 2.78, p=0.006	M = 4.17; SD = 0.77	M = 3.81; SD = 0.81
Openness to experience t(146) = 3.36, p=0.001	M = 4.10; SD = 0.71	M = 3.68; SD = 0.78

Discussion

Regardless of their majors, most participants evaluated themselves as slightly older than their actual age. This result supports the first research hypothesis. The older bias is in line with previous research, including a recent American study that reports an average discrepancy of 1.3 year between the subjective and the chronological age in the period of emerging adulthood (Linder & Nosek, 2018). The general self-evaluation as a little bit older may be explained by normative age-graded factors, most notably the developmental task of establishing adult identity, as well as the attainment of civil rights and responsibilities. In this developmental context the tendency may play an adaptive self-enhancing role.

Participants evaluated only one aspect of their subjective age as closer to the adolescent years - their "*look-age*". They self-rated their appearance as younger than their chronological age. The finding is understandable if we take into account the transitional nature of the period and its normative peak of optimal physical development.

In support of the second hypothesis, participants with higher composite subjective age scored higher on *conscientiousness*. This positive association may be regarded as an important adaptive developmental tendency putting self-regulation at the core of one's age identity. Expressing self-control and grit, *conscientiousness* is the only trait that predicts optimal development, successful academic performance, satisfaction and success in marriage and career, well-being, physical health and longevity (McCrae & Lockenhoff, 2010; Vohs & Baumeister, 2011).

The negative linear correlation of *neuroticism* with the subjective age item "people who know me *casually* regard me as..." reveals that for the emerging adults, evaluating oneself as slightly older in the eyes of acquaintances is linked to lower neuroticism. This result probably reflects age-related social stereotypes assigning adult status to older ones.

The positive linear link between the trait of *openness to experience* and "*interests and activities*" age corresponds to the explorative nature of the developmental period and backs up previous Bulgarian studies differentiating emerging adulthood from further stages in adulthood (Pencheva, Papazova, 2009). In addition to motivation for searching for new ideas and experiences, learning new things, non-standard thinking and creative approach, the adaptive potential of this personality trait is associated with the flexibility of cognitive structures and their change in response to new experiences and information (McCrae & Costa, 1987; Launeanu, 2008).

The hypotheses 3 and 4 were empirically supported. Compared to medical students, students in psychology scored higher on *agreeableness* and *openness to experience*. The findings replicate previous research (De Fruyt & Mervielde, 1996; Kaufman, Pumacchua & Holt, 2013; Lievens et al., 2002, Marris, & et al., 2007, Plaisant, & al., 2011; Vedel, 2016).

The choice of major and the impact of higher education on personality deserve to be taken into account in psychological research. The decision to become a psychologist or a physician represents a commitment which may have profound effects on personality. As a part of their academic training, medical students have a significantly large and detailed amount of factual information to remember and in this way their *openness to experience* is likely to not being foster. Students of psychology are busy with a number of mandatory coursework and research projects requiring a search for new information, the latest trends in science, and critical, dialectical, and relativistic thinking about the many aspects of the human nature and relationships. This is likely to stimulate their *openness to experience*.

Third-year bachelor students in psychology are still predominantly involved in their theoretical and research training. Unlike them, second-year medical students are involved in performing autopsies, and in the third academic year they are dealing with patients and reality of hospitals. According to a Dutch study, the initial, perhaps naïve, motive of being “the good helper” is challenged and changed through the years at medical school (La Cour, 2002). Defense mechanisms such as rationalization and denial help medical students adapt to reality of human suffering and death but this sometimes “may increase their emotional rigidity and lack of understanding at a feeling-level” (La Cour, *ibid.*) and explain the lower scores on *agreeableness*.

Hypothesis 5 was not supported by the results in this study. Students of psychology didn't score higher on *neuroticism* in comparison to medical students.

Conclusion

The study identifies a number of associations between the subjective age and personality traits that reflect the developmental context of the period of emerging adulthood. Findings back up previous Bulgarian and international research. The differences in personality traits found between the two groups of students point to the possible influence of education in shaping personality and age identity. Assessment of students' personality depending on their major may contribute to development of educational strategies for fostering of academic and professional competences. This socially significant area needs to be further investigated with larger and more diverse samples.

References

- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480.
- Christova, D. (2004). Influence of historical changes on life projects in early adulthood. *Annuaire de l'Université de Sofia "St. Kliment Ohridski"*, 96(1), 215–239.

- Christova, D. (2017). Human age: an answer or enigma. A paper presented at The International Scientific Conference "Challenges and perspectives in contemporary psychology". Sofia, Bulgaria, 214–221 <https://unipress.bg./pdf/sbornik.pdf>
- Chibnall, J. T., Blaskiewicz, R. J., & Detrick, P. (2009). Are medical students agreeable? An exploration of personality in relation to clinical skills training. *Medical teacher*, 31(7), e311–e315
- Cutler, S. (1982). Subjective age identification. In: Mangen D., Peterson W. (Eds.). *Research Instruments in Social Gerontology*, Minneapolis, MN: University of Minneapolis Press, 437–462.
- De Fruyt, F., & Mervielde, I. (1996). Personality and interests as predictors of educational streaming and achievement. *Personality*, 10(5), 405–425.
- Demakakos, P. & Gjonca, E. & Nazroo, J. (2007). Age identity, age perceptions, and health. *Annals of the New York Academy of Sciences*. 1114. 279–287. 10.1196/annals.1396.021.
- Deniz, E. M., & Satici, S. A. (2017). The relationships between Big Five personality traits and subjective vitality. *Anales de psicología*, 33(2), 218–224.
- Donnellan, M. B., Oswald F. L., Baird, B. M., & Lucas, R. E. (2006). The Mini-IPIP scales: Tiny-yet-effective measures of the Big Five factors of personality. *Psychological Assessment*, 18(2), 192–203.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: W. W. Norton & Company.
- Galambos, N. L., Turner P. K., Tilton-Weaver, L. C. (2005). Chronological and subjective age in emerging adulthood: The crossover effect. *Journal of Adolescent Research*. 20(5), 538–556.
- Guiot, D. (2000). Subjective age biases among adolescent girls. In Hoch, S.J. and Meyer, R. J. (Eds.), *NA - Advances in Consumer Research*. Provo, UT: Association for Consumer research. 27, 215–223.
- Haslam, N., Whelan, J. (2008) Human natures: psychological essentialism in thinking about differences between people. *Social and Personality Psychology Compass*, 2(3), 1297–1312.
- Hubley, A. M., & Russell, L. B. (2009). Prediction of subjective age, desired age, and age satisfaction in older adults: Do some health dimensions contribute more than others? *International Journal of Behavioral Development*, 33(1), 12–21.
- Karabeliova, S. M., Petrov, D. L., Milanov, M. T. & Ivanova, E. A. (2016). Personality traits and risky health behavior. *Psychological Problems of Development*. SU "St. Kliment Ohridski", 133–156.
- Kastenbaum, R., Derbin, V., Sabatini, P., & Artt, S. (1972). "The ages of me": Toward personal and interpersonal definitions of functional aging. *Aging and Human Development*. 3(2), 197–211.
- Kaufman, J. C., Pumacahua, T. T., & Holt, R. E. (2013). Personality and creativity in realistic, investigative, artistic, social, and enterprising college majors. *Personality and Individual Differences*, 54, 913–917
- Kleinspehn-Ammerlahn, A., Kotter-Grühn, D., Smith, J. (2008). Self-perceptions of aging: do subjective age and satisfaction with aging change during old age?. *The Journals of Gerontology: Series B*, 63(6), 377–385.

- Kotter-Grühn, D., Kornadt, A. E., Stephan, Y. (2016). Looking beyond chronological age: current knowledge and future directions in the study of subjective age. *Gerontology*, 62(1), 86–93.
- La Cour, P. (2002). Psychological defenses of Danish medical students. *The Journal of Nervous and Mental disease*, 190(1), 22–26.
- Launeanu, M. S. (2008). The relationship between subjective age identity and personality variables across the adult lifespan. *A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts*. The Faculty of Graduate Studies (Counseling Psychology). The University of British Columbia, Vancouver.
- Launeanu, M. S., & Hubley, A. M. (2009). The role of personality facets in adult's age identity. *Presented at the 117th Convention of the American Psychological Association (APA)*, Toronto, ON, Canada, 1–6.
- Levinson, D. J., Darrow, D., Levinson, M., Klein, E. B., & McKee, B. (1978). *The seasons of a man's life*. New York: Academic Press.
- Lievens, F., Coetsier, P., De Fruyt, F., & De Maeseneer, J. (2002). Medical students' personality characteristics and academic performance: A five-factor model perspective. *Medical education*, 36(11), 1050–1056.
- Lindner, N. M., Nosek, B. A. (2018). Dimensions of subjective age identity across the lifespan. Preprint DOI: 10.31234/osf.io/m2y5r.
- Marrs, H., Barb, M. R., & Ruggiero, J. C. (2007). Self-reported influences on psychology major choice and personality. *Individual Differences Research*, 5(4), 289–299.
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*. 52(1), 81–90.
- McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*. 52(5), 509–516.
- McCrae, R. R., & Lockenhoff, C. E. (2010). Self-regulation and the five factor model of personality traits. In: Hoyle, R. H. (Ed.). *Handbook of personality and self-regulation*. Wiley-Blackwell, 45–168.
- Pencheva, E., Papazova, E. (2009). Psihologichen profil na vaznikvashtata zrelost (18–29 godini) [Psychological profile of “emerging adulthood” (18-29 years old)]. *Psychological Research*. 12 (2), 221–228.
- Plaisant, O., Courtois, R., Toussaint, P. J., Mendelsohn, G. A., John, O. P., & Moxham, B. J. (2011). Medical students' big five personality scores and the effects on the 'selection process'. *European Journal of Anatomy*, 15(2), 121-128.
- Roberts, B. W., & Davis, J. P. (2016). Young adulthood is the crucible of personality development. *Emerging Adulthood*, 4(5), 318–326.
- Settersen, R. A., and Mayer, K. U. (1997). The measurement of age, age constructing, and the life course. *Annual Review of Sociology*. 23, 233–261.
- Stephan, Y., Demulier, V., Terracciano, A. (2012). Personality, self-rated health and subjective age in a life-span sample: The moderating role of chronological age. *Psychology of Aging*, 27(4), 875–880.
- Stephan, Y., Sutin, A. R., and Terracciano, A. (2014). Subjective age and personality development: A 10-year study. *Journal of Personality*. 83, 142–154.

- Stephan, Y., Sutin, A., & Terraciano, A. Determinants and implications of subjective age across adulthood and old age. In Ryff, C. D., & Krueger, R. F., (Eds.). *The Oxford Handbook of Integrative Health Science*. Oxford: Oxford University Press. 87–96
- Vedel, A. Big five group personality differences across majors: A systematic review. *Personality and Individual Differences*. 192, 1-10.
- Vohs, K. D., Baumeister, R. F. (Eds.). (2011). *Handbook of self-regulation: Research, theory, and applications*. 2nd Ed. New York, NY, US: Guilford Press

Diana Christova

Teodora Djorgova

Sofia University "St. Kliment Ohridski"

LIČNOST I SUBJEKTIVNA STAROST U ODRASLOM DOBU U NASTAJANJU: POREĐENJE DVE GRUPE STUDENATA

Sažetak

Naše istraživanje je fokusirano na doba takozvanog „odraslog doba u nastajanju“ - faze razvoja između adolescencije i odrasle dobi. Svrha studije je istražiti na koji je način subjektivno doba povezano sa osobinama ličnosti tokom ovog perioda i ispitati sličnosti i razlike između studenata psihologije i medicine. Ukupno 148 studenata na univerzitetu je odgovorilo na pitanja o njihovoj subjektivnoj dobi (Kastenbaum, Derbin, Sabatini, & Artt, 1972) i njihovim osobinama ličnosti (Mini IPIP, Karabeliova, Petrov, Milanov i Ivanova, 2016). Učesnici su imali 18–27 godina ($M = 20, 80$; $SD = 1,195$). 53 njih su bili muškarci, a 95 žene. Rezultati u obe grupe učenika ponavljaju nalaz istraživača iz drugih zemalja da je u ovoj životnoj fazi osobina savesnosti povezana sa osećajem da smo stariji od onoga što je naše hronološko doba. U poređenju sa studentima medicine, studenti psihologije postigli su veći rezultat na saradljivosti i otvorenosti za iskustvo. Nisu pronađene statistički značajne razlike između ove dve grupe u pogledu njihovog subjektivnog uzrasta. S obzirom na razvojne zadatke životnog perioda, pretpostavljamo da veza između savesnosti i višeg subjektivnog doba odražava integraciju samoregulacije u vremensku dimenziju ličnog identiteta. Razlike, utvrđene između dve grupe učenika, pokazuju da mladi ne predstavljaju homogenu grupu, i da obrazovanje i profesionalnu orijentaciju ispitanika treba uzeti u obzir u budućim istraživanjima. Veći i demografski različiti uzorci su takođe potrebni.

Ključne reči: odraslo doba u nastajanju, prelazak u odraslo doba, osobine ličnosti, subjektivna dob, akademski smerovi

SELF-ESTEEM, EMOTIONAL INTELLIGENCE AND SOCIAL COMPETENCE IN RELATION TO AGE

Abstract

Although scientifically relatively disputed, the concept of emotional intelligence has proven to be a significant factor that affects emotional and mental health. The aim of this study was to determine the difference in emotional intelligence, self-esteem and social competences in relation to the age of participants. The sample consisted of 1046 pupils of the seventh, eighth and ninth grade of primary schools from the entire territory of Republic of Srpska. The three questionnaires used in this study were: UEK-45, Questionnaire of Self-Esteem and Social Competence Questionnaire MASC. MANOVA was used to analyze the data. The results indicate that a statistically significant age-based effect exists only for the variable of social competences ($F = 14.14.456$; $p < .01$). When individual scales of UEK were analyzed, it was found that a statistically significant difference with regard to the class of respondents exists at the scale Expression and emotional naming (IE; $F = 3.401$; $p < .05$), and the scale of Regulation and Emotion Control (UE; $F = .3.525$; $p < .05$). Research results indicate that there are developmental changes at the level of some components of emotional intelligence as well as social competences. It is recommended to check these conclusions against the tests that are not based on self-evaluation of emotional intelligence.

Key words: emotional intelligence, self-esteem, social competences, age

The concept of emotional intelligence (EI) has been a central theme in a lot of scientific research in the last few decades. There is an increased number of EI articles in scientific journals. For example, from June, 1 2003 till December 1, 2005, articles on EI increased from 464 to 801 (Waterhouse, 2006). But, on the other side, this concept is scientifically relatively disputed because EI theory lacks unitary empirically supported construct (Waterhouse, 2006). However emotional intelligence is in relationship with many factors which are related to emotional and mental health: empathy (Ciarrochi, Chan, & Caputi, 2001), subjective well-being (Chen, Peng & Fang, 2016; Jenaabadi, 2014), self-esteem (Abbas, 2011), academic achievement and achievement motivation (Jenaabadi, 2014; Živković and Pašić, 2016), as well as with prosocial behaviors (Charbonneau & Nicol, 2002), social adjustment (Pilch, 2008) and work attitudes (Carmeli, 2003).

¹ corresponding author milena.pasic@ff.unibl.org

There are a few models of EI. Salovey and Mayer were the first authors that set up the model of EI. They defined emotional intelligence *“as the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions”* (Salovey & Mayer, 1990, pp. 189). Later, Goleman popularized their construct in his bestseller *“Emotional intelligence”* (1997). He proposed that EI consisted of five main domains: knowing one’s emotions, managing one’s emotions, motivating oneself, recognizing emotions in others and handling relationships. These authors have revised their model, but the main difference is whether EI is defined as the personality traits or as the ability. Finally, Mayer, Caruso, Salovey and Sitarenious (2001) suggested a model of EI that can be divided in four areas: accuracy in 1) perceiving emotions, 2) using emotions to facilitate thought, 3) understanding emotions, and 4) managing emotions in a way that enhances personal growth and social relations. The authors suggest that EI is an important factor in various realms in our lives, and it takes its place as predictor of various outcomes at school, work, home and everyday life. Also, it is believed that emotional intelligence helps us create a customized social functioning characterized by a positive environment and good relations (Shapiro, 1997). It is assumed that emotionally intelligent children manage their actions, thoughts and feelings in an adapted and flexible way (Salovey & Mayer, 1990).

Social competences can be understood as the acquired skills that can provide an effective functioning in social contacts (Pilch, 2008). They are learned through the process of socialization, that is, they develop in multiple contexts (formal and informal education) and are shaped on the basis of personality traits and intellectual features, out of which the most important are emotional and social intelligence. Social competences have been conceptualized as complex construct consisting of 6 categories: adoption of social values, development of a sense of personal identity, acquisition of interpersonal skills, learning how to regulate personal behavior in accord with social expectations, planning and decision making and development of cultural competence. The skills and behaviors required for healthy social development vary with age of the child and with the demands of particular situations. A socially competent preschool child behaves differently than a socially competent adolescent. Social competences are the broader term used to describe child’s social effectiveness, and it refers to the ways that a child establishes and maintains high quality and satisfying relationships, and avoids negative treatment and victimization of others. During the first year of life parents are the primary source of social and emotional support for children, but in subsequent years peers begin to play a significant role in a child’s social-emotional development. Social competences include various prosocial behaviors, such as altruism, cooperation with others and ability to build positive and healthy interpersonal relationships. Also, they include ways to resolve interpersonal conflict, assertiveness and self-control, and development of clear self-identity.

Self-esteem with emotional intelligence and social competence has important role in everyday life. Self-esteem is generally conceptualized as a part

of self-concept. This term is most often used to mark awareness of one's own value or evaluation attitude of themselves. Self-esteem is "*Appreciating one's own worth, importance and having the character to be accountable for oneself and to act responsibly towards others*" (Davies, Stankov, Roberts 1998). Self-esteem is often considered as general personality trait as well as personal judgment of worthiness. Individuals with high self-esteem have positive perceptions about themselves. They are more capable to deal with different problems and feel mentally healthier in comparison to those who have poor and low self-esteem. Individual's self-evaluation is based on their own perception about their own self, but opinion of others also plays an important role. Its development takes place in the larger context of relationship, environment related experience, attitude toward oneself and achievements (Gray, 2001). Self-esteem is also in positive correlation with emotional intelligence (Jenaabadi, 2014).

Given that a lot of research indicated that there are positive correlations between emotional intelligence, social competence and self-esteem, the main goal of this research is to examine whether there are age differences in emotional intelligence of pupils. The aim of the research is also to examine whether there is an age difference in self-esteem and social competences since they are related to EI.

Methods

Sample

The total of 1046 pupils (49% girls) participated in this research. All the subjects were pupils of seventh, eighth and ninth grades of elementary schools in Republic of Srpska. Out of 1046 participants, 347 participants were from seventh grades, 367 from eighth grades and 332 were from ninth grades. All pupils who participated in the research submitted a written consent from their parents.

Instruments

Three questionnaires were applied in this research. The first questionnaire was UEK-45 (Questionnaire of Emotional Competence), designed in 2002 by Vladimir Takšić. This questionnaire measures emotional intelligence as a personality trait and contains forty-five items classified into three subscales:

1. *Recognizing and understanding of emotions (URE)*
2. *Expression and naming of emotions (IIE)*
3. *Management and regulation of emotions (UE)*

The reliability of the whole questionnaire expressed in Cronbach alpha coefficient is .886, while it ranges for individual subscales from .714 to .826.

The second questionnaire was Questionnaire of Self-Esteem (Rosenberg, 1965). Rosenberg's self-esteem scale was designed to measure the global feeling of self-esteem and self-acceptance. It consists of 10 items. Reliability of the scale is .756.

Social Competence Questionnaire (MASC) was used for assessing social competence of pupils. The MASC was created by Junttila and colleagues (2006) and consists of 15 items. Two, conditionally speaking, separate aspects of social competence are measured by this questionnaire. The first aspect is positive and it refers to empathy and cooperative skills. The second aspect is negative and it refers to impulsivity and disruptiveness. The reliability of the subscale that measures the positive aspect is .731, while the reliability for subscale of the negative aspect of social competence is very low (.567). For this reason, further analysis did not use data from the second subscale of social competence.

Variables

Independent variable in the study was the *age* with three categories (seventh, eighth and ninth grade). Three dependent variables were measured in this research: *emotional intelligence* (expressed as a score on the UEK-45 questionnaire), *self-esteem* (expressed by a score on the Rosenberg Questionnaire of Self-esteem) and *social competence* (expressed as a score on the MASC questionnaire).

Procedure

This research was conducted during regular classes in the school year. Questionnaires were applied after the parents' written approval was received. The average time for completing the questionnaire was 45 minutes.

Results

Table 1 shows measures of descriptive statistics for measured dependent variables in the research. The results show that the values of all variables are above average.

Table 1. Measures of descriptive statistics for all variables

Variables	Min	Max	Mean	SD
UEK	89.00	224.00	167.59	19.27
URE	28.00	75.00	55.27	8.35
IIE	21.00	70.00	49.93	8.23
UE	24.00	80.00	62.79	7.24
SELF-ESTEEM	13.00	50.00	37.96	6.07
SCPOS	9.00	32.00	26.74	3.39

In order to adequately respond to the main research question, ANOVA was used to determine statistically significant differences between students in terms of the tested variables.

Table 2 shows the differences in the general score, as well as in the individual components of emotional intelligence of students of different grades.

Table 2. Results of univariate variance analysis for emotional intelligence

Dependent variables	df	Mean Square	F	Sig.
UEK	2	692.78	1.949	.143
URE	2	22.20	.314	.730
IIE	2	291.94	4.431	.012
UE	2	246.22	4.886	.008

The obtained results show that there are statistically significant differences between pupils on the scales *Expression and naming of emotions* (IIE) and *Management and regulation of emotions* (UE). In order to determine the differences in the components of emotional intelligence between individual groups, a post-hoc LSD test was calculated. A statistically significant difference in IIE was established between seventh grades and eighth grades ($p < 0.05$) and between seventh and ninth grades ($p < 0.05$). Graphical representation of results is shown in Figure 1.

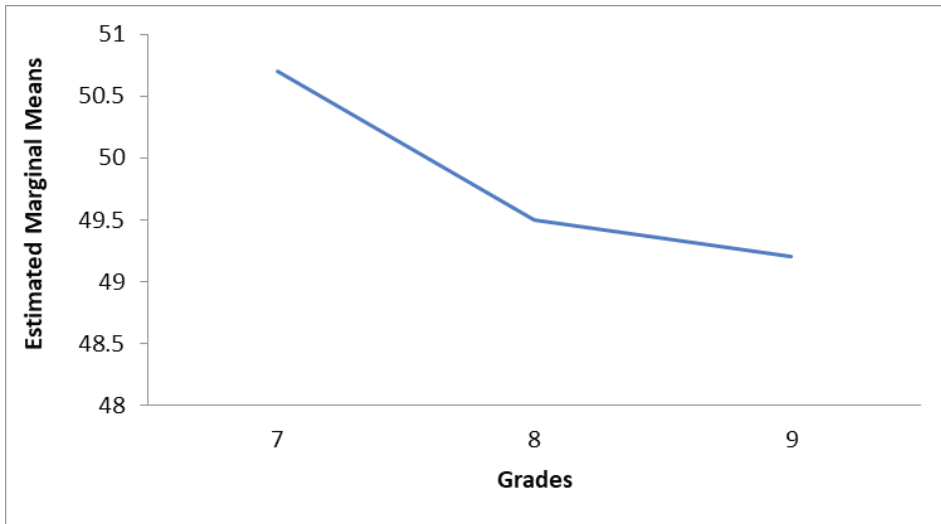


Figure 1. Differences in *Expression and naming of emotions* between different grades

Significant differences in UE was found between seventh and ninth grades ($p < 0.01$). These results are shown in Figure 2.

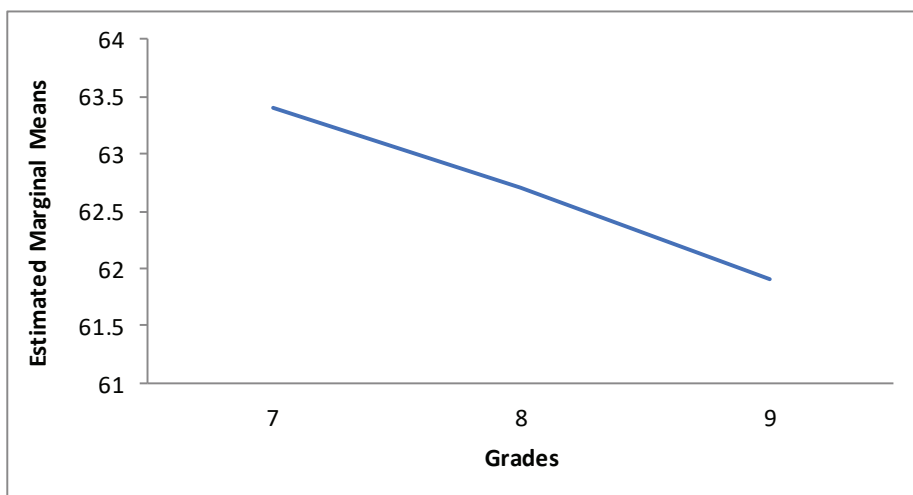


Figure 2. Differences in *Management and regulation of emotions* between different grades

Analysis of the data for the variable social competences is shown in Table 2. The results show that there are differences between the age groups in the total score on the scale of social competences, but there is no statistically significant difference between the participants at the level of the positive aspect of social competences.

Table 2. Results of univariate variance analysis for social competences

Dependent Variables	df	Mean Square	F	Sig.
SOCKOM	2	299.216	9.592	.000
SOCKOMP	2	19.544	1.696	.184

The highest overall score on the scale of social competences is present in seventh grades and the lowest in the ninth grades and this difference is statistically significant ($p < .001$). A statistically significant difference was also obtained between pupils of the seventh and eighth grades ($p < .01$), but the difference between the eighth and ninth grade pupils was not obtained ($p > .05$).

Finally, we tested the existence of a difference in the level of self-esteem among pupils of different classes. There were no statistically significant differences in self-esteem between age groups ($F(2) = 25.097$, $p > .05$).

Discussion

Development of emotional and social competences, as well as self-esteem, is a very important and an integral part of the developmental life of each individual. For example, individuals with high emotional competences have better social skills, more stable long term reactions and better ability to solve problems. Also, children with high emotional skills are more capable of concentrating on problems and using those skills to increase their cognitive abilities (Jenaabadi, 2014). On the other side, development of self-esteem is necessary for normal and healthy developmental process, and social competences are an important component of social, academic and work life of each individual. However, the most important changes in development of these concepts occur in the period of adolescence, which is a period of intensive physiological, physical, emotional and cognitive changes. Adolescents have the need to reconsider and redefine their own values. It is important to develop emotional and social skills, because adolescence is the period of transition into adulthood and the period of the highest risk for development of behavioral disorders (Poulou, 2014).

Although social and emotional competences were expected to increase with age, our results did not confirm this assumption. Adolescents of seventh grades have high scores on scale *Expression and naming of emotions* (IIE) and *Management and regulation of emotions* (UE). However, these results are not completely inexplicable, especially if developmental changes in the period of early adolescence are taken into consideration. In the first period of early adolescence (seventh grade) some fundamental changes happen, so the adolescents must focus their attention on themselves in order to respond to the requirements of these changes. They must be able to rely on their own feelings, thoughts and reactions, and trust in these inner processes. This helps them to function autonomously. In that period the adolescents are much concerned about authenticity, similarity and differences. In middle adolescence period (eighth and ninth grades) the major need for an adolescent is to feel strongly attached to their peers, school and specific social environment. Adolescents are more separated from their parents in a certain way and remain in a state of isolation and loneliness.

Second explanation for our results, is a possibility that they are determined by the school curricula, where the frontal type of teaching is predominant and there is not enough possibilities for adolescents to develop their emotional and social competence. Considering that these competences can be shaped in different contexts, there is the possibility of making different incentive programs in schools. The early adolescence is perhaps the period in which application of these programs would be optimal.

Conclusion

These results show that emotional and social competences have decreased in the years of early and middle adolescence. Therefore, it is necessary to introduce a

program that would increase emotional and social competences in the early childhood. These programs need to be a product of a wide spectrum of different professionals in education. The main approach should be to develop a wider range of communication and social skills, which would help a child to prosper in contemporary society. That implies an individual approach to students and treatments that encourage self-esteem, emotional intelligence and social competence.

It is also essential for us to continue doing research, especially on adolescents in secondary school. One of the possible suggestions for future researchers is to change the focus from children to their parents and environment factors that impact children. "It is obviously better to have direct, objective assessment techniques "rather than people's self-description of how emotionally intelligent they are" (Mayer, J. D., & Salovey, P. 1997).

References

- Abbas, I. (2011). A relationship between emotional intelligence and self-esteem: study in universities of Pakistan. *Arts and Design Studies, 11*, 10-16.
- Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behavior and outcomes: An examination among senior managers. *Journal of Managerial Psychology, 18*(8), 788-813.
- Charbonneau, D., & Nicol, A. A. M. (2002). Emotional intelligence and prosocial behaviors in adolescents. *Psychological Reports, 90*(2), 361-370.
- Chen, Y., Peng, Y., & Fang, P. (2016). Emotional intelligence mediates the relationship between age and subjective well-being. *The International Journal of Aging and Human Development, 83* (2), 91-107.
- Ciarrochi, J., Chan, A.Y.C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences, 28*, 539-561.
- Davies, M., Stankov, L., & Roberts, R. D. (1998). Emotional Intelligence: In Search of an Elusive Construct. *Journal of Personality and Social Psychology, Vol. 75 No. 4*, pp. 989-1015.
- Goleman, D. (1997). *Emocionalna inteligencija*. Beograd: Geopoetika.
- Gray, P. (2001). *Psychology*. 4th Edition. Worth Publishers
- Jenaabadi, H. (2014). Studying the relationship between emotional intelligence and self-esteem with academic achievement. *Procedia-Social and Behavioral Sciences, 114*, 203-206.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development, emotional literacy, and emotional intelligence*. New York: Basic Books.
- Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2001). Emotional intelligence as a standard intelligence. *Emotion, 1*, 232-242.
- Pilch, I. (2008). Machiavellianism, emotional intelligence and social competence: Are Machiavellians interpersonally skilled? *Polish Psychological Bulletin, 39*(3), 158-164.

- Poulou, M. (2014). The effects on students' emotional and behavioral difficulties of teacher-students interactions, students' social skills and classroom context. *British Educational Research Journal*, 40(6), 986-1004.
- Salovey, P., Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9, 185-211.
- Shapiro, L. E. (1997). *Kako razviti emocionalnu inteligenciju djeteta*. Zagreb: Mozaik knjiga.
- Waterhouse, L. (2006). Multiple Intelligences, the Mozart Effect, and Emotional Intelligence: A Critical Review. *Educational Psychologist*, 41(4), 207-225.
- Živković, I. & Pašić, M. (2016). Emocionalna kompetencija i motiv postignuća kao prediktori akademskog postignuća srednjoškolaca. *Zbornik radova Banjalučki novembarski susreti*. Banja Luka: Filozofski fakultet, 25-40.

Milena Pašić

Svetlana Borojević

Tanja Čolić

Univerzitet u Banjoj Luci, Filozofski fakultet;

JU „Zaštiti me“ Banja Luka

SAMOPOŠTOVANJE, EMOCIONALNA INTELIGENCIJA I SOCIJALNA KOMPETENCIJA U ODNOSU NA STAROST

Sažetak

Iako je naučno relativno sporan, koncept emocionalne inteligencije pokazao se kao značajan faktor koji utiče na emocionalno i mentalno zdravlje. Cilj ove studije bio je utvrditi razliku u emocionalnoj inteligenciji, samopoštovanju i socijalnim kompetencijama u odnosu na starost učesnika. Uzorak je činilo 1046 učenika sedmih, osmih i devetih razreda osnovnih škola sa čitave teritorije Republike Srpske. Tri upitnika koja su korištena u ovoj studiji su: UEK-45, Upitnik samopoštovanja i upitnika socijalne kompetencije MASC. MANOVA je korišćena za analizu podataka. Rezultati pokazuju da statistički značajan efekat na starosnu dob postoji samo kod varijable socijalna kompetencija ($F = 14.14.456$; $p < .01$). Kada su analizirane pojedinačne skale UEK-a, ustanovljeno je da statistički značajna razlika u odnosu na odeljenje ispitanika postoji na skalama ekspresije i imenovanja emocija (IE; $F = 3.401$; $p < .05$), i skalama regulacije i kontrole emocija (UE; $F = .3.525$; $p < .05$). Rezultati istraživanja pokazuju da postoje razvojne promene na nivou nekih komponenti emocionalne inteligencije, kao i socijalne kompetencije. Preporučuje se da se ovi zaključci provere na testovima koji se ne zasnivaju na samoproceni emocionalne inteligencije.

Ključne reči: emocionalna inteligencija, samopoštovanje, socijalne kompetencije, starost

SELF-REPORTED AND PARTNER-REPORTED PERSONALITY TRAITS AS PREDICTORS OF MARITAL QUALITY²

Abstract

The research problem is to investigate the relationship between self-reported and partner-reported personality domains and traits, and marital quality defined as dyadic adjustment in marriage.

Personality dimensions are treated in accordance with Five factor model of personality, and measure by NEO-PI-R (Đurić-Jočić et al., 2004) while the marital quality is assessed by The Dyadic Adjustment Scale (DAS; Spanier, 1976). The sample consisted of 400 subjects, ie. 200 marital couples.

The results of hierarchical regression analysis show that personality domains of women explain 18% of variation in their marital adjustment (self-reported Neuroticism, Extraversion and Openness), while the addition of their husbands' personality domains can explain only 4% more variance in marital quality (partner-reported Agreeableness). For men, self-reported domains of personality explain 10,2% of the variation in DAS scores (self-reported Extraversion and Agreeableness), while wives' personality explain additional 10,9% variance of husbands' marital quality (partner-reported Extraversion). Analysis based on facets show that 30 different personality traits explained 49,6% ($R^2 = ,49$, $p < .001$) of variance on marital quality for women and 46,4% ($R^2 = ,49$, $p < .001$) for men. Precisely, self-reported Depression is negative predictor of marital quality, while Positive emotions are positive one, for both partners, regardless of gender. Also, for women, Anxiety and Sensation Seeking are positive and Self-Consciousness negative predictor, while for men Self-Consciousness is positive and Openness to Idea is negative predictor of one's perceived quality of marriage. When it comes to the partners' personality traits, husbands' vulnerability and positive emotions are significant predictors for wives' marital adjustment, while wives' traits does not predict marital quality of their husbands.

The findings can be seen as a contribution of stable personality characteristics to understanding of partners relationships.

Key words: personality traits, marital quality, dyadic adjustment in marriage, hierarchical regression analysis

¹ Corresponding author milica.tosic.radev@filfak.ni.ac.rs

² This research was supported by a research grant of the Ministry of Education, Science and Technological Development of the Republic of Serbia, within the framework of the 179002 project.

Introduction

A large field of unsolved research, but also life-related questions refer to partner, but even more so, marital relationships. The study of the factors which contribute to the quality of the marital relationship is very important, considering that their causes are varied and numerous, and the consequences of marital interaction are far-reaching and important both for the married couple, but also for their children and society as a whole (Tošić, 2011).

There are various approaches to the definition of marital quality, and Spanier (1976) defines it as the mutual adjustment of the spouses, which is determined by the degree of: (1) troublesome dyadic differences; (2) interpersonal tensions and personal anxiety; (3) dyadic satisfaction; (4) dyadic cohesion; and (5) consensus on matters of importance to dyadic functioning" (p. 17). While marital satisfaction and happiness both refer to subjective evaluations of positive affect in the marital relationship by one, or both, of the spouses, marital adjustment signifies both behavioral and evaluative aspects of a marital relationship. A well-adjusted marriage is often characterized by high interaction and cohesion, low levels of disagreement, high levels of commitment to the relationship and good communication (Spanier & Lewis, 1980).

A large number of research deals with variables that affect the marital quality and stability of couples' relationships, while personality variables are one of the most important one. From all the theoretical backgrounds, the five-factor model of personality was used the most in studies related to marital quality. The five-factor model of personality is a hierarchical organization of personality traits in terms of five basic dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. Neuroticism or emotional instability is the tendency to be anxious, fearful, depressed and prone to negative emotionality, in general. Openness is related to creativity, imagination and thoughtfulness. Extraversion represents the tendency to be positive and outgoing, assertive, active, and excitement seeking. Agreeableness consists of tendencies to be kind, gentle, trusting, trustworthy and warm, while Conscientiousness measures the extent to which individuals are hardworking, organized, dependable, and persevering (Costa and McCrae, 1985).

Using the five-factor model of personality, a lot of studies have found links between personality and relationship satisfaction. Personality characteristic which influence relationships the most is negative emotionality (e.g., neuroticism, anxiety). The results unambiguously point to the negative effects of neuroticism on the quality of marriage, marital satisfaction and marital stability or dissolution (Davila, Karney, Hall, & Bradbury, 2003; Karney & Bradbury, 1997; Kelly & Conley, 1987; Kurdek, 1997; Lavee & Ben-Ari, 2004, Watson, Hubbard & Wiese, 2000). The results of longitudinal studies even suggest that neuroticism is the strongest predictor of the likelihood of divorce, indicating that neurotic attitudes early in a relationship may potentially predict its future course (Kelly & Conley, 1987). It

has been found that other personality traits influence marital adjustment over and above the effect of neuroticism for both men and women (Bouchard Lussier & Sabourin, 1999). Extraversion has been associated with following positive relationship variables such as: satisfaction, marital success, intimacy, passion (Barry, 1970, Bentler & Newcomb, 1978; Karney & Bradbury, 1995; Kelly & Conley, 1987, Shadish, 1986). On the other side, extraversion has also been associated with negative relationship variables such as: lower satisfaction for men (Bentler & Newcomb, 1978; Sabatelli, Dreyer & Buck, 1983), divorce for men (Eysenck, 1980) and marital instability (Karney & Bradbury, 1995). The situation is similar when it comes to the openness to experience. This personality trait, in a certain number of research results, has a positive effect on marital satisfaction (Botwin, Buss & Shakelford, 1997; Donnellan, Conger & Bryant, 2004; Gattis, Berns, Simpson & Christensen, 2004; Watson, Hubbard & Wiese, 2000), but findings also indicate that it can negatively be linked to stability and the duration of the marriage (Karney & Bradbury, 1995; Shaver & Brennan, 1992). When it comes to other dimensions of personality, agreeableness and conscientiousness, results generally indicate a positive effect (Botwin, et al., 1997; Donnellan et al., 2004; Gattis et al., 2004; Karney i Bradbury, 1997; Watson et al., 2000) on marital satisfaction, duration and stability of marriage.

The literature indicates that there is a strong negative effect for neuroticism among both men and women (Lavee & Adital, 2004), although it seems that it is stronger among women than men (Bouchard et al., 1999). Most research also indicates that neuroticism has a negative partner effect, meaning men and women whose spouse or partner is high in neuroticism tend to report lower relationship satisfaction (Bouchard et al. 1999). In some studies was found that wives' perceptions of marital quality are related to their husbands' level of neuroticism but not vice versa (Lavee & Ben-Ari, 2004). One contrasting study conducted with a Jewish sample found a partner effect of husbands' neuroticism on wives' satisfaction, but no partner effect for wives' neuroticism on husbands' satisfaction (Lavee & Adital, 2004). In one study, it was found that the neuroticism of both partners acted negatively on the quality of marriage, regardless of gender. Besides neuroticism, self-reported agreeableness is related to self-reported marital adjustment for both spouses. The effects of self-reported openness and conscientiousness are restricted to men's adjustment, while self-reported extraversion is not a significant predictor at all. With respect to partner effect, only husbands' openness contributes over and above neuroticism to the marital adjustment of the other spouse. (Bouchard et al., 1999). In another study, it was found that Extraversion in one spouse is associated with lower marital satisfaction reported by the other (Lester, Haig, & Monello, 1989). On the other hand, in a study carried out in Croatia, it was determined that the more sociable a husband and wife are, the greater the wife's marital satisfaction (Obradović & Čudina-Obradović, 2000). In another study carried out in Croatia, it was determined that in the case of men, their personality characteristics are of key importance

for their experience of marital quality, and not the personality characteristics of their wives, with the exception of neuroticism. In the case of women, the results are somewhat different, indicating the importance only of the personality characteristics of their husbands, especially their Agreeableness, for the wives' experience of marital quality. In this research was also found that the similarity in personality characteristics of the marital partners were not a significant predictor for the subjective evaluation of marital quality, either for the men, or the women (Martinac Dorčić & Kalebić Maglica, 2009).

Methodology

The problem and hypothesis of the study

The subject of this research is to investigate the relationship between self-reported and partner-reported personality, defined in accordance with big five model of personality, and marital quality defined as dyadic marital adjustment.

In accordance with the subject matter of the research, we propose the following hypotheses:

H1. Self-reported personality traits and dimensions are significant predictor of self-reported marital quality

H2. One partner's personality traits and dimensions predict the marital adjustment of the other partner

H3. There is statistically significant difference in personality dimensions and traits that are predictors of marital quality for men and women.

Instruments

The subjects' personality were studied using the NEO-PI-R, a well-established 240-item Likert-type measure of the 5 basic personality traits: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). It also measures six subordinate dimensions (facets) of each of the five traits (Đurić-Jočić et al., 2004). Taken together, the five domain scales and thirty facet scales of the NEO PI-R facilitate a comprehensive and detailed assessment of normal adult personality. The psychometric characteristics of the NEO-PI-R instrument were evaluated on the Serbian population, and proved to be quite good at the domain level. The scales that measure domains are marked by high reliability, with the internal consistency, in range from Cronbach alpha value from 0,80 to 0,90 (Knežević, Džamonja-Ignjatović, Đurić-Jočić, 2004, Đurić Jočić Džamonja-Ignjatović & Knežević, 2004).

The Dyadic Adjustment Scale (DAS; Spanier, 1976) The DAS is currently the most widely used self-report measure of relationship adjustment. It is a 32-item measure developed for married couples or similar dyads. The scale measures dyadic adjustment along the following four components: (1) Dyadic consensus (DCon) is the degree of agreement that couples hold on issues of importance such

as handling family finances or making major decisions. (2) Dyadic Satisfaction (DS) -- degree to which respondent feels satisfied with partner, the degree of happiness in the relationship, as well as the frequency of conflicts experienced in the relationship (3) Dyadic Cohesion (DCoh) – degree to which respondent and partner participate in activities together (4) Affectional Expression (AE) – degree to which respondent agrees with partner regarding emotional affection. Content, criterion-related and construct validity, as well as internal consistency reliability are adequate (Spanier, 1976). Results on our sample show that scale has high reliability (Cronbach alfa = ,953), as well as high internal consistency of subscales (DS= ,900; Dcoh= ,805; Dcon= ,913; AE= ,653).

The sample

The sample is consisted of 400 subjects, ie. 200 marital couples (husband and wife) from Niš, Serbia. The average age of the subjects is $AS=44,42$ ($SD=11,38$). The average duration of the relationship before marriage is around 28 months, and the average duration of the marriage is 18,62 years, in the range from a being together for a couple of months to 57 years in marriage. In average, families in the sample have 1,5 child. Distribution pattern in terms of education follows a normal distribution, ie. the largest number of respondents have finished high school and the majority of the respondents are employed ($N=284$, 138 males and 146 females).

Results

By using the Pearson's correlation coefficient, the relations between personality variables and marital quality were found. As was expected, the results suggested a statistically significant and negative correlation between all the subscales which measure the evaluation of marital quality and the Neuroticism (N) of an individual as a personality dimension. At the level of the facets of this domain, we can see that Impulsiveness is not related to marital quality. The Anxiety (N1) of an individual has a negative effect on the evaluation of marital quality, primarily reducing marital satisfaction and increasing interpersonal tension, while Social anxiety (N4), as a personality characteristic which is characterized by a sense of unease in social interactions, shyness and inhibition in social situations, has a negative impact on marital cohesion and marital satisfaction, but has no influence on the degree of agreement, affectional expression, and even the overall experience of marital quality. The following personality characteristics from the domain of Neuroticism: Hostility (N2), Depression (N3) and Vulnerability (N6), are in a statistically significant negative correlation with all the aspects and overall experience of marital quality. What this actually means is that vulnerability, as well as the tendency towards experiencing negative affect, depression and sensitivity to stress as personality characteristics significantly decrease the experienced

marital quality, affecting all of its components: degree of agreement, affectional expression, marital cohesion, and marital satisfaction.

Table 1. *Correlations between perceived marital quality and personality of the partners*

		DS	DS partner	DCoh	Dcon	AE	DAS
Anxiety (N1)	r	-,131*			-,100*	-,107*	
Hostility (N2)	r	-,168**	-,112*	-,125*	-,158**	-,167**	-,120*
Depression (N3)	r	-,305***	-,181***	-,232***	-,270***	-,294***	-,188***
Self-Consciousness (N4)	r	-,123*		-,104*			
Impulsiveness (N6)	r	-,289***	-,240***	-,265***	-,299***	-,313***	-,227***
Neuroticism (N)	r	-,257***	-,157**	-,193***	-,222***	-,244***	-,152***
Warmth (E1)	r	,209***	,183***	,168**	,238***	,234***	,193***
Sociability (E2)	r	,151**	,164**		,172**	,166**	,185***
Assertiveness (E3)	r			,101*			
Excitement Seeking (E5)	r	,122*	,127*		,121*	,131*	,144**
Positive emotions (E6)	r	,345***	,324***	,301***	,341***	,373***	,357***
Extraversion (E)	r	,247***	,231***	,214***	,242***	,267***	,264***
Feelings (O3)	r	,143**	,143**	,128*	,108*	,138*	,139**
Values(O6)	r	,099*	,114*	,152**	-,031*	,105*	,133*
Openess (O)	r		,110*	,114*			
Trust (A1)	r			,104*	,100*		,100*
Altruism (A3)	r	,126*	,151*	,113*	,153**	,105*	,147**
Agreeableness (A)	r		,101**		,115*		
Competence (C1)	r	,204***	,179***	,202***	,209***	,136*	,221***
Order (C2)	r	,128*	,175***	,139**	,136**		,140**
Dutifulness (C3)	r	,172**	,182***	,159**	,158**		,172**
Achievement Striving(C4)	r	,122*	,146**	,197***	,101*	,103*	,142**
Self-Discipline(C5)	r	,152**	,134**	,159**	,136*		,155**
Deliberation (C6)	r	,122*	,129*	,109*	,135*		,135*
Savesnost (C)	r	,199***	,207***	,213***	,193***	,117*	,213***

Note. *p<.05. **p<.01. ***p<.001.

When it comes to Extroversion (E), in our research a statistically significant positive correlation was obtained between these personality characteristics and

the evaluation of marital quality and all the aspects of the marital relationship. At the level of individual facets, only the Activity (E4), the trait which is characterized by high energy and a need for the individual to constantly take part in some activity is not statistically significantly related to the evaluation of the marital relationship. The trait of Assertiveness (E3) is related only to marital cohesion, which might mean that more assertive individuals have a better experience of marital cohesion and partner interaction than less imposing and shy individuals. On the other hand, Sociability (E2) and Excitement Seeking (E5) are not related to the evaluation of marital cohesion, but have a statistically significant and positive influence on all the other aspects of the marital relationship and the overall experience of marital quality. However, it is primarily the characteristics of Warmth (E1), which includes the ability for establishing intimacy and friendly relations, and Positive Emotions (E6), that is, the tendency to experience positive emotions: love, joy and thrill to the greatest extent, are positively related to all the aspects and overall evaluation of marital quality. Namely, warm, spontaneous, merry and optimistic individuals evaluate their marriages better, show greater signs of marital satisfaction, they are on better terms with their partners, manifest more affectional expression and cohesion in their relationship than those who are less warm, more reserved, withdrawn, quiet and serious.

Openness (O) is not statistically significantly related to the evaluation of marital quality, except on the sub-scale of marital cohesion, suggesting that more open individuals spend more of their free time with their partner, their interaction is greater, that is, their cohesion. At the level of the facet, from the domain of Openness (O), only the facets Feelings (O3) and Values (O6) are statistically significantly related to and have a positive correlation with the experience of marital quality and all its aspects. The characteristic Feelings (O3) is characterized by intense emotions and their evaluation as an important part of one's own life, while Values (O6) refer to the readiness to evaluate one's own beliefs and a greater tolerance for something different. Our results were expected and indicate better marital adjustment among people who are show more feelings toward others and are more tolerant of their understandings.

Even though the results show that the characteristic of Agreeableness (A) is not statistically significantly related to the evaluation of marital quality, except with the Dyadic consensus subscale, the analysis at the level of facets has indicated that altruistic and generous individuals have higher scores of marital quality, or at least evaluate them as such. Namely, Trust (A1), that is, the conviction of an individual that other people have good intentions has a positive correlation with marital cohesion and degree of agreement between spouses, and the overall experience of marital quality, while Altruism (A3) correlates with the evaluation of marital quality on all the sub-scales.

Finally, Conscientiousness (C) and all the facets within this personality dimension statistically significantly and positively correlate with an individual's marital adjustment. In the case of the dimension of conscientiousness, our findings

agree with the existing ones and suggest that conscientious people are more self-control, responsible, prone to order, discipline and achievement-orientation in romantic relationship. In short, it seems that conscientious persons tend to be "motivated workers in their love relationships" (Engel et al., 2002, p. 847).

From table 1 it can be seen that the experience of marital quality on the part of an individual is statistically significantly related to the personality dimensions of their partner, husband or wife. Thus, the evaluation of marital quality is negatively related to Neuroticism (N) of the marital partner, and positively correlated to all the other personality dimensions of the spouse: Extroversion (E), Openness (O), Agreeableness (A) and Conscientiousness (C). What this would actually mean is that there is a connection between the evaluation of marital quality of an individual and all the personality dimensions of their spouse. The more extroverted the partner, the more open, the more agreeable and conscientious, and the less neurotic, the greater the experienced marital quality. In that way, Neuroticism, Extroversion and Conscientiousness of both partners are connected to the evaluation of marital quality, Openness and Agreeableness of an individual are not statistically significantly related to their evaluation of marital quality, but these personality dimensions of the partners are positively correlated to the evaluation of marital quality on the part of the individual. In addition, it was determined that the personality characteristics of the husband or wife: Hostility (N2), Depression (N3) and Vulnerability (N6) are in a negative correlation with the experience of marital quality on the part of their marital partner. What this actually means is that the more prone a partner is toward anger and frustration or is even more depressed and sensitive, the lower the experienced marital quality on the part of his partner. On the other side, there was found positive correlation between perception of the quality of the individual's marital relationships and the following personality traits of his or her partner: Warmth (E1), Sociability (E2), Excitement Seeking (E5), Positive emotions (E6), Feelings (O3), Values (O6), Altruism (A3) and all other facets within Conscientiousness trait (C): Competence (C1), Order (C2), Dutifulness (C3), Achievement (C4), Self-Discipline (C5) and Deliberation (C6). Results show that when those personality traits are more pronounced with one spouse, other spouse perceive higher marital quality, and vice versa.

With the aim to investigate whether it exists statistically significant difference in prediction of the marital quality based on personality dimensions (self-reported and partner-reported) for men and women, we conducted the hierarchical regression analysis on a sub-samples for males and females (Table 2).

Table 2. *Self-reported and partner-reported dimensions of personality as predictors of self-reported marital quality*

	Women's Marital Adjustment			Men's Marital Adjustment		
	B	Cumulative		B	Cumulative	
Personality		R ²	ΔR ²		R ²	ΔR ²
<i>First run</i>		,18***	,18***		,10**	,10**

Self-reported neuroticism	-,179*				
Self-reported extraversion	,421***			,202*	
Self-reported openness	-,304*				
Self-reported agreeableness				,138*	
<i>Step 2</i>		,22***	,04		,21*** ,11***
Self-reported neuroticisma	-,236*				
Self-reported extraversion	,475***				
Self-reported openness	-,280*				
Partner-reported agreeableness	,248*				
Partner-reported extraversion				,328**	

Note. *p<.05. **p<.01. ***p<.001.

Results within table 2 show that personality traits of wife explains 18% of variability of marital quality. When analysis consider personality traits of husband and personality traits of wife together, explained variability goes to 22%, which is 4% more if only wife’s personality traits was taken in consideration, and following personality dimensions are significant: Self-reported Neuroticism (N), Extraversion (E), Openness (O) and Partner-reported Agreeableness (A). In the first step, for men, self-reported presonality dimensions explains 10, 2% of variability of perception of marital quality. There are only two statistically significant predictors – Extraversion (E) and Agreeableness (A) of husband. When personality traits of wife were added in predictive model, level of statistically significant prediction increase for additional 10, 9%, in total there was 21, 1% of explained variability of husband’s perception of marital quality. But, from wife’s personality traits, only her Extraversion (E) is statistically significant predictor of perceived marital quality of her husband.

In table 3 we presented the results of hierarchical regression analysis considering personality traits (facets) as significant predictor of self-reported and partner-reported marital quality.

Table 3. *Self-reported and partner-reported personality traits as predictors of self-reported marital quality*

Personality	Women's Marital Adjustment			Men's Marital Adjustment		
	β	<i>Cumulative</i> R^2	ΔR^2	β	<i>Cumulative</i> R^2	ΔR^2
<i>First step</i>		,36***	,36		,31***	,31***
Self-reported Anxiety (N1)	,201*					
Self-reported Depression (N3)	-,333**			-,324**		
Self-reported Self-Consciousness (N4)				,207*		
Self-reported Vulnerability (N6)	-,213*					
Self-reported Excitement Seeking (E5)	,233*					
Self-reported Positive Emotions (E6)	,361***			,195*		
Self-reported Ideas (O5)				-,162*		

Self-reported Self-Discipline (C5)							-,265*	
<i>Second step</i>			,49***	,14			,46***	,16
Self-reported Depression (N3)		-286*						-,298*
Self-reported Self-Consciousness (N4)								,269**
Self-reported Positive Emotions (E6)		,426***						,295*
Partner-reported Vulnerability(N6)		-,256*						
Partner-reported Positive Emotions (E6)		,193*						
Note. *p<.05. **p<.01. ***p<.001.								

Analysis within the level of facets, ie. 30 different aspects of personality traits, allows precise insight to which of them determine marital quality of spouses. Those results point that personality traits of both spouses explains 49, 6% of variability of wife's marital quality and 46, 4% of husband's marital quality. Also, own personality traits explains perceived marital quality at statistically significant level, but on the other side personality traits of marital partner have no statistical significance in predictive model improvement (some of personality traits are excepted in this case). Namely, Self-reported Depression (N3) represents negative predictor, and Positive emotions represents an positive predictor of marital quality, within both spouses. Nonetheless, within sample of wives, Self-reported Anxiety (N1) and Self-reported Excitement Seeking (E5) have positive predictive effect on marital quality, while Self-reported Vulnerability (N6) have negative predictive effect. Within sample of husbands, Self-reported Self-Consciousness (N4) gives positive predictive effect, and Ideas (O5) gives negative predictive effect on marital quality. When it comes to the personality traits of a spouse, within sample of wives, husband's Vulnerability (N6) is negative predictor and his Positive emotions (E6) the positive predictor of women marital quality. In sample of husbands there are no personality traits of wife that give significant effect on explanation of his marital quality.

Discussion and conclusions

The research has confirmed that the personalities of the marital partners are an important determinant of marital quality, which is not surprising considering that personality dimensions represent characteristic and relatively enduring ways of thinking, feeling and behaving. Our findings to a great extent agree with the previous findings in this field, but also indicate some specific dynamics of marital functioning in our environment, agreeing with the findings from other countries in the region.

Altogether, the results suggest the negative influence of neuroticism and a positive effect of extroversion and agreeableness on marital quality, but also indicate the fact that the neuroticism of the wife has a more damaging effect on the marriage and agreeableness has a more positive effect when it is an expressed

trait of the husband. At the level of individual characteristics, it has been indicated that the traits related to Depression and Positive emotions are important predictors of marital quality, independent of gender, which actually means that the tendency of the individual themselves towards a more positive disposition and the absence of pessimism lead to marital satisfaction. These findings indicate that our characteristics to a great extent predispose us to a certain marital quality and a certain level of marital satisfaction. In the case of men, the influence of the personality attributes of the wife are almost non-existent, with the exception that more often marital quality is greater if the wife is more sociable. In the case of women, the personality traits of the husband play a more important role, and for a wife's satisfaction the Positive emotions and absence of Vulnerability of the husband play the most important role. Finally, an important and interesting finding, similar to that of the authors from Croatia, is that women are more susceptible to the influence of external factors, in the sense of the personality characteristics of their partners.

Surprisingly, we did not find that neuroticism has a negative partner effect, while it is only statistically significant negative predictor of women marital quality. Those findings could be referred to similar findings in literature about fact that neuroticism is more frequently within sample of women (Martin & Kirkcaldy, 1998) and that it is stronger predictor among women than men (Bouchard et al., 1999). The correlations, as well as regression analysis based on facets show that, regardless of gender, the tendency to experience negative emotions, such as the sorrow of helplessness, contribute to poorer adapting to marriage. In fact, self-reported Depression is statistically significant predictor of marital quality for men and woman, which is in accordance with earlier findings regarding depression and marital quality (Beach, Sandeen, & O'Leary, Dehle and Weiss, 1998; Downey & Coyne, 1990). When we consider Depression as a mental illness, some studies showing that about a half of depressed women reported serious marital difficulties (Beach, Jouriles, & O'Leary, 1985; Jacobson, 1989). Because maladaptive interpersonal behaviors are believed to characterize emotional instability and promote and maintain depression there are several possible explanations for their negative effect on marital quality. Emotional unstable people can be often unsatisfied or pessimistic (Cote' & Moskowitz, 1998) and tend to elicit negative life events through negative behavior or contagion (Caughlin, Huston, & Houts, 2000). Also, researchers found that neuroticism has been linked to several mediating variables, such as: negative interaction behaviors (Caughlin et al., 2000), lower levels of concurrent sexual satisfaction (Fisher & McNulty, 2004), unadequate coping strategies used during conflict (Bouchard, 2003) or through the anxious-ambivalent insecure attachment style (Hazan & Shaver, 1987).

Not only the tendency to experience negative emotions, but also the tendency to experience positive emotions, like optimism, is significant predictor of perceived marital quality for both, men and women. Also, Agreeableness of the husband is statistically significant predictor of his, as well as the quality of

marriage of his wife, the result which was obtained in the Croatian study, too (Martinac Dorčić & Kalebić Maglica, 2009). Agreeable individuals probably form and maintain romantic relationships easier because Agreeableness is positively linked to conflict resolution (Jensen-Campbell & Graziano, 2001) and more responsiveness in social interactions (Tobin, Graziano, Vanman, & Tassinari, 2000), which leads to better interpersonal relations and higher marital satisfaction. Intriguingly, husband's Agreeableness (A) is more important in prediction of marital quality. This could be explained on basis of findings that women are, usually, more agreeable than men (Costa, Terracciano, McCrae, 2001, Feingold, 1994; Weisberg, DeYoung & Hirsh, 2011), so when husband is more nurturing, tender-minded and altruistic, it is greater quality of the marriage. As we can see, this is especially characteristic for cultures where traditional division of gender roles is present, like Serbian or Croatian.

Our results confirm the findings that extraversion, of all personality traits, is the most principled for the quality of marriage (Terman, 1938). On the other side, we did not confirm earlier finding that high extraversion in one spouse is associated with lower marital satisfaction reported by the other (Lester et al., 1989). In fact, we found that it is greater adjustment in marriage when both partners are more extraverted, and for men if their wives are more social. Low openness for women is also predictive for women self-reported adjustment in marriage. This result can be related with previous findings which indicate that openness can negatively be linked to stability and the duration of the marriage (Karney & Bradbury, 1995; Shaver & Brennan, 1992), especially in our, somewhat patriarchal environment where greater openness of the wife can be expected to potentially endanger her relationship with her current marital partner.

Similar to the findings of the study carried out in Croatia, in the case of our sample it was also determined that the husband's assessment of marriage remains independent of the personality of the wife, while the wife's assessment of marriage depends on the tendency towards positive emotions and (absence of) vulnerability of the husband. The Croatian authors (Martinac Dorčić & Kalebić Maglica, 2009) interpret these findings as a result of the greater dependence of the wife on external factors, that is, a smaller differentiation of wives from their environment and the greater vulnerability which can be an important indicator of marital dynamics in our environment, and even wider, since in general findings point out that women's goals and their thoughts, feelings, and behavior are influenced by their close relationships more than men (Cross & Madson, 1997) and that close relationships are more personally relevant to women, who also show greater physiological responses to stressors within the intimate relationships (Wanic & Kulik, 2011).

Marriage is undoubtedly one of the key elements of an society, if we invest in marriage as an institution it can preserve and improve the quality of the society in which we live, but when we devaluates marriage it can ruin the society. Therefore the researches that explores personalities of the marital partners can

harmonize marriage, and became an significant factor not only in strengthening the satisfaction of the spouses but also in improving the quality the life of all members of an society.

References

- Barry, W. A. (1970). Marriage research and conflict: An integrative review. *Psychological Bulletin*, 73(1), 41-54. <http://dx.doi.org/10.1037/h0028474>
- Beach, S. R. H., Jouriles, E. N., & O'Leary, K. D. (1985). Extramarital sex: Impact on depression and commitment in couples seeking marital therapy. *Journal of Sex and Marital Therapy*, 11, 99 – 108.
- Beach, S. R. H., Sandeen, E. E., & O'Leary, K. D. (1990). *Depression in marriage*. New York: The Guilford Press.
- Bentler, P. M., & Newcomb, M. D. (1978). Longitudinal study of marital success and failure. *Journal of Consulting and Clinical Psychology*, 46, 1053-1070.
- Botwin, M.D., Buss, D.M. & Shakelford, T.K. (1997). Personality and mate preferences: Five factors in mate selection and marital satisfaction. *Journal of Personality*, 65, 107-136.
- Bouchard, G. (2003). Cognitive appraisals, neuroticism, and openness as correlates of coping strategies: An integrative model of adaptation to marital difficulties. *Canadian Journal of Behavioural Science*, 35, 1–12
- Bouchard, G., Lussier, Y. & Sabourin, S. (1999). Personality and Marital Adjustment: Utility of the Five-Factor Model of Personality. *Journal of Marriage and Family*, 61(3), 651-660.
- Caughlin, J. P., Huston, T. L., & Houts, R. N. (2000). How does personality matter in marriage? An examination of trait anxiety, interpersonal negativity, and marital satisfaction. *Journal of Personality and Social Psychology*, 78, 326–336.
- Costa P. T., Jr., Terracciano A., McCrae R. R. (2001). Gender differences in personality traits across cultures: robust and surprising findings. *Journal of Personality and Social Psychology*, 81, 322–331. [10.1037/0022-3514.81.2.322](https://doi.org/10.1037/0022-3514.81.2.322)
- Costa, P. X., & McCrae, R. R. (1985). *The NEO-PI Personality Inventory*. Odessa, FL: Psychological Assessment Resources
- Cote', S. & Moskowitz, D. S. (1998). On the dynamic covariation between interpersonal behavior and affect: Prediction from Neuroticism, extraversion, and agreeableness. *Journal of Personality and Social Psychology*, 75, 1032–1046.
- Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin*, 122, 5-37
- Davila, J., Karney, B. R., Hall, T. W., & Bradbury, T. N. (2003). Depressive symptoms and marital satisfaction: Within-subject associations and the moderating effects of gender and neuroticism. *Journal of Family Psychology*, 17, 557–570.
- Donnellan, M. B., Conger, R. D., & Bryant, C. M. (2004). The big five and enduring marriage. *Journal of Research in Personality*, 38, 481-504.

- Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An integrative review. *Psychological Bulletin*, 108, 50 – 76.
- Đurić-Jočić, D., Džamonja-Ignjatović, T. i Knežević, G. (2004). *NEO PI R – primena i interpretacija*. Beograd: Centar za primenjenu psihologiju i Društvo psihologa Srbije.
- Engel, G., Olson, K. R., & Patrick, C. (2002). The personality of love: Fundamental motives and traits related to components of love. *Personality and Individual Differences*, 32, 839–853
- Eysenck, H. J. (1980). Personality, Marital Satisfaction, and Divorce. *Psychological Reports*, 47(3_suppl), 1235–1238. <https://doi.org/10.2466/pr0.1980.47.3f.1235>
- Feingold A. (1994). Gender differences in personality: a meta-analysis *Psychological Bulletin*, 116, 429–456.
- Fisher, T.D., McNulty, J.K. (2008). Neuroticism and Marital Satisfaction: The Mediating Role Played by the Sexual Relationship. *Journal of Family Psychology*, 22(1), 112–122
- Gattis, K. S., Berns, S., Simpson, L. E., & Christensen, A. (2004). Birds of a feather or strange birds? Thies among personality dimensions, similarity, and marital quality. *Journal of Family Psychology*, 18, 564–574.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
- Jacobson, N. S. (1989). The maintenance of treatment gains following social learning-based marital therapy. *Behavior Therapy*, 20, 325 – 336.
- Jensen-Campbell, L.A., Graziano, W.G. (2001). Agreeableness as a moderator of interpersonal conflict. *Journal of Personality*, 69(2):323-361.
- Karney, B., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, methods, and research. *Psychological Bulletin*, 118, 3–34.
- Kelly, E. L., & Conley, J. J. (1987). Personality and compatibility: A prospective analysis of marital stability and marital satisfaction. *Journal of Personality and Social Psychology*, 52, 27–40.
- Knežević, G., Džamonja-Ignjatović, T., Đurić-Jočić, D.(2004). *Petofaktorski model ličnosti*, Beograd: CPPDPS
- Kurdek, L. A. (1991). Correlates of relationship satisfaction in cohabiting gay and lesbian couples: integration of contextual, investment, and problem-solving models. *Journal of personality and social psychology*, 61(6), 910-922.
- Lavee, Y., Ben-Ari, A. (2004). Emotional Expressiveness and Neuroticism: Do They Predict Marital Quality? *Journal of Family Psychology*, 18(4), 620–627
- Lester, D., Haig, C. i Monello, R. (1989). Spouses` personality and marital satisfaction. *Personality and Individual Differences*, 10, 253-254.
- Martin, T. i Kirkcaldy, B. (1998). Gender differences on the EPQ-R and attitudes to work. *Personality and Individual Differences*, 24, 1-5.
- Martinac Dorčić, T., Kalebić Maglica, B. (2009). Povezanost osobina ličnosti s bračnom kvalitetom i izraženošću psihičkih simptoma kod bračnih partnera. *Psiholgijske teme* 18(1),75-97.

- McCrae, R.R. i Costa, P.T. (1986). Personality, coping and coping effectiveness in an adult sample. *Journal of Personality*, 54, 385-405.
- Obradović, J. i Čudina-Obradović, M. (2000). Correlates of subjective global marital satisfaction in women. *Društvena istraživanja*, 9, 41-65.
- Sabatelli, R. M., Dreyer, A., & Buck, R. (1983). Cognitive style and relationship quality in married dyads. *Journal of Personality*, 51, 192-201.
- Shadish, W.R. (1986). The Validity of a Measure of Intimate Behavior. *Small Group Research* 17(1):113-120. doi: 10.1177/104649648601700110
- Shaver, P. R., & Brennan, K. A. (1992). Attachment styles and the "Big Five" personality traits: their connections with each other and with romantic relationship outcomes. *Personality and Social Psychology Bulletin*, 18, 536-545.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38, 15-28.
- Spanier, G., Lewis, R.A. (1980). Marital Quality: A Review of the Seventies. *Journal of Marriage and Family*, 42(4), 825-839
- Terman, L. M., Bottenwieser, P., Ferguson, L. W., Johnson, W. B., & Wilson, D. P. (1938). *Psychological factors in marital happiness*. New York: McGraw-Hill.
- Tobin, R.M., Graziano, W.G., Vanman, E.J., Tassinari, L.G. (2000). Personality, emotional experience, and efforts to control emotions. *Journal of Personality and Social Psychology*. 79(4), 656-669.
- Tošić, M. (2011). Razlike u doživljaju kvaliteta braka partnera različitog stepena obrazovanja, radnog i finansijskog statusa, *Godišnjak za psihologiju*, 8(10): 135-151.
- Wanic, R.A., Kulik, J. (2011). Toward an understanding of gender differences in the impact of marital conflict on health. *Sex Roles*. 5, 297-302. doi: 10.1007/s11199-011-9968-6
- Watson, D., Hubbard, B. and Wiese, D. (2000), General Traits of Personality and Affectivity as Predictors of Satisfaction in Intimate Relationships: Evidence from Self- and Partner-Ratings. *Journal of Personality*, 68, 413-449. doi:10.1111/1467-6494.00102
- Weisberg, Y. J., DeYoung, C. G., & Hirsh, J. B. (2011). Gender differences in personality across the ten aspects of the big five. *Frontiers in Psychology*, 2, Article ID 178, <http://dx.doi.org/10.3389/fpsyg.2011.00178>

Milica Tošić Radev

Dušan Todorović

Snežana Stojiljković

Univerzitet u Nišu, Filozofski fakultet

CRTE LIČNOSTI BRAČNIH PARTNERA KAO PREDIKTORI KVALITETA BRAKA

Sažetak

Problem istraživanja je ispitati odnos između samoprocenjenih i procenjenih od strane partnera domena i osobina ličnosti, i bračnog kvaliteta koji je definisan kao dijadno prilagođavanje u braku. Dimenzije ličnosti tretiraju se u skladu sa petofaktorskim modelom ličnosti, merene NEO-PI-R (Đurić-Jočić i dr., 2004), dok je bračni kvalitet procenjen upotrebom The Dyadic Adjustment Scale (DAS; Spanier, 1976). Uzorak se sastojao od 400 ispitanika, tj. 200 bračnih parova. Rezultati hijerarhijske regresijske analize pokazuju da domene ličnosti žena objašnjavaju 18% varijacije u bračnom prilagođavanju (samoprocenjeni neuroticizam, ekstraverzija i otvorenost), dok dodavanje domena ličnosti njihovih supruga može objasniti samo 4% veću varijansu u kvalitetu braka (saradljivost procenjena od strane partnera). Za muškarce, samoprocenjeni domeni ličnosti objašnjavaju 10,2% varijanse u DAS skorovima (samoprocenjena ekstraverzija i saradljivost), dok ličnost supruge objašnjava dodatnih 10,9% varijanse u bračnom kvalitetu muževa (Ektraverzija procenjena od strane partnera). Analiza zasnovana na facetama pokazuje da je 30 različitih osobina ličnosti objasnilo 49,6% ($R^2 = ,49, p < .001$) odstupanja u bračnom kvalitetu žena i 46,4% ($R^2 = ,49, p < .001$) za muškarce. Preciznije, samoprocenjena depresivnost je negativan prediktor bračnog kvaliteta, dok su pozitivne emocije pozitivan za oba partnera, bez obzira na pol. Takođe, kod žene su anksioznost i traženje senzacija pozitivni prediktori, a samo-svesnost negativan prediktor, dok je za muškarce samo-svesnost pozitivna, a otvorenost za ideje negativan prediktor samoprocenjenog bračnog kvaliteta. Kada su u pitanju osobine partnera, ranjivost supruga i pozitivne emocije su značajni prediktori za bračno prilagođavanje žena, dok osobine žena ne predviđaju bračni kvalitet njihovih supruga. Ova otkrića mogu se posmatrati kao doprinos stabilnih karakteristika ličnosti razumevanju partnerskih odnosa.

Ključne reči: osobine ličnosti, kvalitet braka, dijadno dijadna prilagođenost u braku, hijerarhijska regresiona analiza

INTIMATE PARTNER VIOLENCE, ATTITUDES TOWARD GENDER EQUALITY AND SELF-ESTEEM OF FEMALE STUDENTS²

Abstract

The goal of this research is to examine whether violence in female students' relationships can be predicted based on adopted traditional or egalitarian attitudes towards gender equality and based on level of self-esteem. Research sample consisted of 180 female students from Faculty of Philosophy, who are in a relationship or had a relationship in past 6 months. We used Questionnaire of committed violent behavior in partner relationship (Ajduković, Löw and Sušac, 2011) that consists of subscales for assessment of psychological, physical and sexual violence; Attitudes towards gender equality scale (Ravlić and Raboteg-Šarić, 2004) that consists of subscales for assessment of attitudes towards parenting roles, social-interpersonal-heterosexual roles, professional, marital and education roles and Self-esteem scale (Rosenberg, 1965). Regression analysis was applied and it revealed that examined predictors could explain 6,2 % of committed psychological violence and that statistically significant predictors are only attitudes towards marital roles. For committed physical violence the examined predictors explained 10,8% of variance and statistically significant predictors are self-esteem, adopted attitudes towards parenting roles and attitudes towards marital roles. The scale for assessment of sexual violence, was found to be unreliable, so it was excluded from analysis. The percentage of explained variance is not high, which implies that intimate partner violence needs to be examined using other variables.

Key words: violence, partner relationships, attitudes, equality, self-esteem.

Intimate partner violence

Intimate partner violence (IPV) is a prevalent problem, as it occurs at alarming rates among adolescents aged 16–24 (Hickman, Jaycox & Aronoff, 2004; Wolfe, Scott, Wekerle & Pittman, 2001). IPV is commonly referred to as dating violence (DV) among this age group. Violence in partner relationships (dating violence) can be divided into three forms (Ajduković & Ručević, 2009): psychological abuse (insulting, humiliating, criticizing, intimidation by interruption, isolation, naming the names, etc.), physical abuse (plundering, rough pushing, hitting hands, legs and objects, bites, etc.) and sexual abuse (unwanted and unpleasant behavior of

¹ corresponding author Ivana.jankovic@filfak.ni.ac.rs

² This paper was created as part of the project 179002 financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia

a sexual nature). College students are particularly vulnerable to dating violence because many are involved in their first serious romantic relationship during these years of development. Given that many college students are new to dating relationships, they are likely limited in their repertoire of communication and relationship skills (Fredland, Ricardob, Campbell, Sharp, Kubc, & Yonasd, 2005). The factors that predict perpetration are not necessarily the same factors that predict victimization. Thus, a separate examination of victimization and perpetration is warranted. Although DV has traditionally been thought of as a man physically aggressing against a woman, it is now widely recognized that both men and women can be perpetrators and victims and that there are many forms of DV (i.e., physical, sexual, psychological/ verbal). Early studies conducted during the 1980s reported higher rates of victimization for young women and perpetration for young men (Makepeace, 1981). More recent work notes higher perpetration rates among women and victimization rates higher among men (Cercone, Beach, & Arias, 2005; Kaukinen, Gover, & Hartman, 2012). Among adolescents, research consistently shows that females perpetrate more acts of violence in intimate relationships than males (Arriaga & Foshee, 2004; Hickman et al., 2004; Lichter & McCloskey, 2004; Munoz-Rivas, Grana, O'Leary, & Gonzalez, 2007; Schwartz, O'Leary, & Kendziora, 1997; Spencer & Bryant, 2000; Wolf et al., 2001). Psychological DV, which includes disparaging or hurtful comments to a partner, is perpetrated more by young women and then by young men (Hickman, et al., 2004; Shook, Gerrity, Jurich, & Segrist, 2000). Previous research indicating that reports of being a victim of physical violence are more common among male than female adolescents (Hickman et al., 2004; O'Keefe, 1997; Shen, Chiu, & Gao, 2012; Shook, Gerrity, Jurich, & Segrist, 2000; Simon, Miller, Gorman-Smith, Orpinas, & Sullivan, 2010) Sexual dating violence, which refers to the use of intimidation, coercion, or force by one partner to compel the other to perform sexual acts, is perpetrated by more young men than young women (Hickman et al., 2004; O'Keefe, 1997). Motives for perpetrating adolescence dating violence often differ between males and females. Girls are more likely to use violent self-defense tactics as a response to boyfriends' abusive behaviors, and boys are more likely to terrorize and perpetrate violence against girls as a method of control (Foshee, Bauman, Linder, Rice, & Wilcher, 2007). In exploring college women's use of violence, Leisring (2013) found that anger, retaliation for emotional hurt, to get her intimate partner's attention, jealousy, and stress were all common reasons given for perpetrating dating violence.

The cause of DV is dynamic and complex. Results suggest there is no single risk factor for DV among college students. The theoretically relevant variables identified as potential risk factors included individual risk factors (e.g., substance use, risky sexual behaviors, personality characteristics, and attitudinal factors), family risk factors (e.g., history of family violence or child abuse), and peer and social risk factors (e.g., athletic team membership, and type of relationship) (Duval, Lanning, & Patterson, 2018). In this study we deal with the connection of dating

violence with certain individual risk factors, more precisely, with self-esteem and attitudes regarding gender equality.

Traditional and egalitarian views of gender roles

In linguistic practice, the meaning of sex and gender is often used synonymously. However, there are essential differences between these two concepts. While the notion of sex is related to the characteristics of an individual whose roots are in biology, anatomical and physiological differences that determine differences in physical appearance, and the appearance of reproductive organs, gender is a cultural definition of women and men and is variable in time and space (Lithander, 2000, according to Jugović, 2004). The gender therefore relates to non-biological, cultural and socially produced differences between women and men, masculinity and femininity. As a socially constructed concept, gender includes various social roles, identities that are related to women and men (Milić, 2007). The social roles of men and women can be manifested in many areas of life, in interpersonal life, in marriage, in parents and children, in the field of employment and education. People can have more egalitarian or more traditional attitudes regarding the engagement of men and women in different areas of life. Traditional views of roles in intimate relationships tend to be the strongest during adolescence when both boys and girls are still attempting to establish and determine expectations for their gender (Feiring, 1999). Research suggests that adherence to traditional gender-role ideology is associated with the justification and the actual perpetration of relationship violence (Reitzel-Jaffe & Wolfe, 2001). Gender-role stereotypes are viewed as key elements contributing to dating violence (Mahlstedt & Welsh, 2005). Research has also found that these variables (i.e., adversarial sexual beliefs, sex-role stereotyping, adherence to traditional gender roles, and dissatisfaction with their power in the relationship) are related to young women's DV perpetration (Bookwala, Frieze, Smith, & Ryan, 1992; Chen & White, 2004; Kaura & Allen, 2004). One study showed unexpected effects, that is, females' use of dating violence was associated with traditional views of women's roles while males' use was associated with less traditional views on men's roles (Bookwala et al., 1992). In one study on the sample of Croatian adolescents (Hodžić, 2007), the tendency to victimization and abuse in relationship was examined with regard to the agreement with three traditional attitudes on gender roles and identities. Girls who believe that a real woman is passive, caring, sensitive, have experienced jealous and possessive behavior by the partners, but they themselves were prone to jealous behavior, accusation and control of partners. Girls, who agree with the attitude that only women are responsible for the upbringing of children and home affairs, unlike those who do not think so, are statistically significantly more inclined to experience emotional blackmail, while for a greater inclination to use violent behavior in relationship, no statistically significant difference. Girls who

believe in the stereotype about a real man as active, aggressive, independent and dominant, are more inclined to control and check their partners. (Hodžić, 2007). Previous research indicating that adolescents endorsing traditional gender-role beliefs would be more predisposed to perpetrate sexual dating violence than individuals who hold relatively equalitarian gender-role beliefs (Shen, et al., 2012, Sears, Byers, & Price, 2007).

Self-esteem

Coopersmith (1967) defines self-esteem as the person's evaluation about self that expresses an attitude of approval or disapproval and indicates the extent to which the individual believes him or herself to be capable, significant, successful, and worthy. Through the understanding of one's own value, the ability and readiness for intimacy with another person is developed (Todorović, 2005). Self-esteem, as an attitude towards oneself, can be a conscious or subconscious process and can contain a positive or negative connotation. An individual does not have to be aware of his own attitude towards oneself. In any case, self-esteem will be manifest in his voice, posture, gestures and behavior in general (Coopersmith, 1967). Self-esteem is crucial for adolescents, because, adolescents are profoundly influenced by the ideas and opinions of people around them. There is growing evidence that suggests self-esteem is strongly connected to violence; however, the findings regarding the direction of this relationship are mixed. There are studies that suggested a negative relationship between the two variables; specifically, individuals with low self-esteem seem more likely to show aggressive behavior than individuals with high self-esteem (self-esteem was negatively related to IPV) (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Milner, & Baker, 2017; Papadakaki, Tzamalouka, Chatzifotiou, & Chliaoutakis, 2009; Stefanile, Matera, Nerini, Puddu, & Raffagnino, 2017; Wallace, Barry, Zeigler-Hill, & Green, 2012). The link between partner aggression and low self-esteem has received several explanations. Some argue that the individuals who have low self-esteem engage in violence to repress their failure and inferiority complex, shame, which is why they have a high tendency toward violence (Lee & Hankin, 2009; Ostrowsky, 2010; Robins, Donnellan, Widaman, & Conger, 2010; Tracy & Robins, 2003). There are also studies that argue the opposite. These studies claim that the tendency toward violence increases among individuals who have high self-esteem as they tend to have narcissistic personalities and extreme self-confidence (Locke, 2009; Muslu, Cenk, & Sarlak, 2017; Thomaes, Bushman, Stegge, & Olthof, 2008). At the same time, some scholars have determined that there is no relationship between the tendency toward violence and self-esteem (Barry, Grafeman, Adler, & Pickard, 2007).

Bearing in mind the given theoretical framework, this study is important as it demonstrates the relationship between attitudes towards gender equality, self-esteem and violence among young people in Serbia.

Goals of research

The subject of this research is to investigate the relationship between attitudes towards gender equality, self-esteem and committed violence in partner relationship. The specific goals were:

- Examine the expression of attitudes towards gender equality, self-esteem of female students and their perpetration (committed) of partner violence-psychological, physical and sexual
- Examine the correlations between attitudes towards gender equality, self-esteem and the perpetration of partner violence
- Examine whether partner violence in female students can be predicted based on their attitudes towards gender equality and self-esteem.

Sample

The research was conducted in 2018 at the Faculty of Philosophy in Nis. The sample consisted of 180 students, aged 19-25 ($M=20.94$, $SD=1.44$). In the last six months, all students had experience of a partner relationship before testing. This was a condition for completing the questionnaire on the committed of violence. Prior to testing, all respondents received a formal consent to participate in the research.

Instruments

Questionnaire of committed violent behavior in partner relationship (Ajdukovic, Löw and Susac, 2011). The scale contains subscales for assessment of psychological (19 items), physical (7 items) and sexual violence (4 items). Participants were asked to indicate how many times they behaved in these ways on a scale of 0 (not once) to 5 (very often, several times a week). Examples are: „I insulted or cursed a boyfriend“ (psychological violence); „I pushed my boyfriend“ (physical violence); „I forced my boyfriend into unprotected sex“ (sexual violence). Cronbach's alpha coefficients were: a subscale for assessing psychological violence .872; a subscale for assessing physical violence .817; a subscale for assessing sexual violence .544. Due to low reliability, the scale for assessing sexual violence is omitted from further analysis.

Attitudes towards gender equality scale (Ravlić and Raboteg-Šarić, 2004) is a modified version of the SRE scale (Sex-Role Egalitarianism Scale, Beers, King, Beere, & King, 1984). The scale consists of 64 items that contain descriptions of the behavior of women and men in traditional and non-traditional roles or a comparison of the behavior of both sexes. Responses are given on a 5-point scale from 1-strongly disagree to 5-strongly agree. The scale contains five subscale that measure attitudes

towards equality between women and men in different areas of social life: attitudes towards parenting roles (example: *"Fathers must be able to change diapers to their babies"*), $\alpha = .845$; attitudes toward social-interpersonal-heterosexual roles, (example: *"A woman should feel as freely as a man go to the cinema itself"*), $\alpha = .767$; attitudes towards professional roles, (example: *"Women are as capable as men to perform long-lasting tasks"*), $\alpha = .846$; attitudes towards marital roles, (example: *"Employed husband and wife must equally share housework"*) $\alpha = .788$; attitudes towards education roles, (example: *"Women are able to study for the captain of a ship or a plane"*) $\alpha = .654$.

Rosenberg Self-Esteem Scale (RSES, Rosenberg, 1965). The scale consisted of 10 items. Participants were asked requested to indicate the extent of their agreement or disagreement with each of 10 statements using a 5-point scale from 1-strongly disagree to 5-strongly agree. Example: *"Generally speaking, I'm satisfied with myself"*. Reliability is good enough, Cronbach's alpha coefficient was .769.

Results

The main results of this study were shown in the following tables.

Tabela 1: Descriptives statistics

	N	MIN	MAX	M	SD
Psychological violence	180	0.00	3.21	0.67	0.61
Physical violence	180	0.00	3.29	0.38	0.62
Sexual violence	180	0.00	3.00	0.20	0.51
Parenting roles	180	2.80	5.00	4.34	0.55
Social-heterosexual roles	180	2.50	5.00	3.97	0.62
Professional roles	180	2.63	5.00	4.33	0.55
Marital roles	180	2.58	5.00	4.19	0.57
Education roles	180	2.33	5.00	4.17	0.63
Self-esteem	180	2.50	5.00	4.08	0.56

The mean values for committed violence in partnership relations in this sample of female students are very low: $M = 0.67$ (psychological violence) and $M = 0.38$ (physical violence), $M=0.20$ (sexual violence). When analyzing frequencies in individual items, the highest percentages are obtained for items that evaluate psychological violence. For example, 61.8% of girls say that one or more times they yelled at the boyfriend, 53.3% of girls say that one or more times gossiped a boyfriend, 51.7% of girls say that one or more times insulted or cursed a boyfriend, and 47.2% of girls one or more times attempted to deliberately cause a sense of guilt in a boyfriend. The mean values for attitudes towards gender equality are very high. The highest mean value is for attitude regarding parental roles ($M = 4.34$), and the lowest mean value for attitude in terms of social-heterosexual roles ($M = 3.97$). The obtained data show that the mean value for self-esteem is shifted to higher values ($M = 4.08$) on the scale from 1 to 5.

Table 2. Corellations between committed psychological and physical violence, attitudes towards gender equality and self-esteem

		Parenting roles	Social-heterosexual roles	Professional roles	Marital roles	Education roles	Self-esteem
Psychological violence	r	-.212	-.178	-.162	-.077	-.163	-.162
	p	.002	.008	.015	.152	.014	.012
Physical violence	r	-.279	-.210	-.197	-.108	-.189	-.203
	p	.000	.002	.004	0.75	.006	.003

Committed psychological and physical violence is in a negative and statistically significant correlation with attitudes on gender equality in terms of parental, socially interpersonal heterosexual roles, professional and educational roles. Respondents' self-esteem show negative correlation with both committed psychological and physical violence in partner relationships. All correlations are low to moderate.

Table 3. Attitudes towards gender equality and self-esteem as predictors committed psychological violence

Predictors	Criterion:		Model
	Committed psychological violence		
	Beta	P	
Parenting roles	-.252	.092	
Social-heterosexual roles	-.136	.263	R=.305
Professional roles	-.045	.770	R²=.062
Marital roles	.365	.014	p=.009
Education roles	-.084	.590	
Self-esteem	-.136	.084	

The results of linear regression analysis show that attitudes towards marital roles are significant predictors of committed psychological violence. Examined predictors could explain 6.2 % variance of experienced psychological violence.

Table 4. Attitudes towards gender equality and self-esteem as predictors committed physical violence

Predictors	Criterion:		Model
	Committed physical violence		
	Beta	P	
Parenting roles	-.404	.006	
Social-heterosexual roles	-.120	.309	R=.372
Professional roles	-.022	.885	R²=.108
Marital roles	.384	.008	p=.000
Education roles	-.026	.862	
Self-esteem	-.158	.039	

The results of linear regression analysis show that both self-esteem and attitudes towards parenting and marital roles are significant predictors of experienced physical violence. Based on the height of the Beta coefficient, the greatest predictive power has an attitude in terms of parental roles, and then marital role, and the least self-esteem. Examined predictors could explain 10.8 % variance of committed physical violence.

Conclusions

The issue of intimate partner violence has received considerable and much deserved attention over recent decades. Most of these studies address perpetrated or endured violence among young adults in the context of intimate relationships or dating. Prevention of violence in adolescent relationships is one of the key links in the prevention of violence in later partnerships. Studies show that violence is more common in those partner relationships, and with those partners who have experience with violence in earlier, adolescent relationships (Gelles, & Cornell, 1990). Experiences in partner relationships that are acquired during adolescents and youth are the basis for relationships during adulthood. Hence, it is important to investigate which factors contribute to the increase, and which reduce the incidence of violence in adolescent relationships.

The main goal of this study was to investigate the connection between attitudes towards gender equality, self-esteem and psychological and physical violence committed by female students in romantic partnership relations. Precisely, the main goal was whether partner' violence committed by female students can be predicted based on their attitudes towards gender equality and self-esteem.

The results of descriptive statistics are in favour of the high agreement with the items that are the manifestations of attitudes towards gender equality and self-esteem. Female students have more equal attitudes regarding gender equality and more pronounced self-esteem. Violence in partner relationships is not expressed. The level of agreement with the items that are the indicators of committed psychological and physical violence is extremely low. This means that the female students have little experience with these forms of violence in partner relationships. However, by observing the frequency on individual items, some forms of psychological violence, such as shouting, insulting, cursing, gossiping a boyfriend, deliberately provoking a sense of guilt, have made a large percentage of girls, one or more times.

After examining the correlations between attitudes towards gender equality, self-esteem and partner violence, we noticed a relatively similar connection between attitudes towards gender equality and self-esteem with committed psychological violence, and attitudes towards gender equality and self-esteem with committed physical violence. Committed psychological and physical violence

is in a negative and statistically significant correlation with attitudes on gender equality in terms of parental, socially interpersonal heterosexual roles, professional and educational roles, as well as with self-esteem, but the correlations are not high. The results show that the more egalitarian attitudes regarding the roles of men and women is followed by a less frequent incidence of violence in a partner relationship. With psychological and physical violence, the strongest connection shows attitude toward parental roles. Psychological violence is the weakest connected with attitude towards professional roles, and physical violence is the weakest connected with attitude towards education roles. The results of this study are complementary to research findings confirming that egalitarian attitudes to gender roles lead to a reduction in partner violence, while traditional attitudes increase (Reitzel-Jaffe & Wolfe, 2001, Bookwala et al., 1992; Hodžić, 2007).

As for the association between low self-esteem and violence perpetration, several examples are observed within literature (Donnellan et al., 2005; Milner, & Baker, 2017; Papadakaki et al., 2009; Stefanile et al., 2017, Wallace et al., 2012). The link between partner aggression and low self-esteem has received several explanations. Some argue that the individuals who have low self-esteem engage in violence to repress their failure and inferiority complex, shame, which is why they have a high tendency toward violence (Lee & Hankin, 2009; Ostrowsky, 2010; Robins et al., 2010, Tracy & Robins, 2003).

The results of the linear regression analysis revealed that psychological violence in female students' relationship can be predicted based on attitudes towards gender equality in terms of marital roles, whereas physical violence can be predicted based on the degree of self-esteem and attitudes they have towards equality of marital and parenting roles. The percentage of explained variance is not high, which implies that intimate partner violence needs to be examined using other variables. Based on the results of this research, it could be concluded that, in order to reduce the committed of partner violence, the programs for the prevention and suppression of violence in partner relationships should develop and strengthen self-esteem in girls and at the same time strengthens attitudes regarding the equality of gender roles.

References

- Ajduković, D., Löw, A., i Sušac, N. (2011). *Upitnik počinjenih nasilnih ponašanja u vezi*. Zagreb: Društvo za psihološku pomoć.
- Ajduković, M. i Ručević, S. (2009). Nasilje u vezama mladih. *Medicus, 18*, 217-225.
- Arriaga, X. B., & Foshee, V. A. (2004). Adolescent dating violence: Do adolescents follow in their friends', or their parents', footsteps? *Journal of Interpersonal Violence, 19*, 162-184.
- Barry, C. T., Grafeman, S. J., Adler, K. K., & Pickard, J. D. (2007). The relations among narcissism, self-esteem, and delinquency in a sample of at-risk adolescents. *Journal of Adolescence, 30*, 933-942.

- Beere, C.A., King, D.W., Beere, D.B. i King, L.A. (1984). The Sex-Role Egalitarianism Scale: A measure of attitudes toward equality between sexes. *Sex Roles, 10*, 563-576.
- Bookwala, J., Frieze, I. H., Smith, C., & Ryan, K. (1992). Predictors of dating violence: A multivariate analysis. *Violence and Victims, 7*, 297-311.
- Cercone, J. J., Beach, S. R. H., & Arias, I. (2005). Gender symmetry in dating intimate partner violence: Does similar behavior imply similar constructs? *Violence and Victims, 20*, 207-218.
- Chen, P., & White, H. R. (2004). Gender differences in adolescent and young adult predictors of later intimate partner violence. *Violence Against Women, 10*, 1283-1301.
- Coopersmith, C. (1967). *Antecedents of self-esteem*. Palo Alto: Consulting Psychologists Press.
- Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., Moffitt, T. E., & Caspi, A. (2005). Low self-esteem is related to aggression, antisocial behavior, and delinquency. *Psychological Science, 16*, 328-335.
- Duval, A., Lanning, B.A., & Patterson, M.S. (2018). A Systematic Review of Dating Violence Risk Factors Among Undergraduate College Students. *Trauma, Violence & Abuse, 1*-19.
- Feiring, C. (1999). Gender identity and the development of romantic relationships in adolescence. In W. Furman, B. Bradford Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 211-232). New York, NY: Cambridge University Press.
- Foshee, V. A., Bauman, K. E., Linder, F., Rice, J., & Wilcher, R. (2007). Typologies of adolescent dating violence: Identifying typologies of adolescent dating violence perpetration. *Journal of Interpersonal Violence, 22*, 498-519.
- Fredlanda, N. M., Ricardob, I. B., Campbell, J. C., Sharpsc, P. W., Kubc, J. K., & Yonasd, M. (2005). The meaning of dating violence in the lives of middle school adolescents: A report of a focus group study. *Journal of School Violence, 4*, 95-114.
- Gelles, R., & Cornell, C. (1990). *Intimate violence in families*. London, England: Sage.
- Hickman, L. J., Jaycox, L. H., & Aronoff, J. (2004). Dating violence among adolescents: Prevalence, gender distribution, and prevention program effectiveness. *Trauma, Violence, & Abuse, 5*, 123-142.
- Hodžić, A. (2007). *Nasilje ne prolazi samo od sebe: Izvještajo istraživanju rodno uvjetovanog nasilja u adolescentskim vezama u Republici Hrvatskoj*. Zagreb: CESI.
- Jugović, I. (2004). *Zadovoljstvo rodnim ulogama*. Neobjavljeni diplomski rad. Zagreb: Filozofski fakultet.
- Kaukinen, C., Gover, A. R., & Hartman, J. (2012). College women's experiences of dating violence in casual and exclusive relationships both as victims and perpetrators. *American Journal of Criminal Justice, 37*, 146-162.
- Kaura, S. A., & Allen, C. M. (2004). Dissatisfaction with relationship power and dating violence perpetration by men and women. *Journal of Interpersonal Violence, 19*, 576-588.
- Lee, A., & Hankin, B. L. (2009). Insecure attachment, dysfunctional attitudes, and low self-esteem predicting prospective symptoms of depression and anxiety during adolescence. *Journal of Clinical Child & Adolescent Psychology, 38*, 219-231.

- Leisring, P. A. (2013). Physical and emotional abuse in romantic relationships motivation for perpetration among college women. *Journal of interpersonal violence*, 28, 1437–1454.
- Lichter, E. L., & McCloskey, L. A. (2004). The effects of childhood exposure to marital violence on adolescent gender-role beliefs and dating violence. *Psychology of Women Quarterly*, 28, 344–357.
- Locke, K. D. (2009). Aggression, narcissism, self-esteem, and the attribution of desirable and humanizing traits to self versus others. *Journal of Research in Personality*, 43, 99–102.
- Makepeace, J. M. (1981). Courtship violence among college students. *Family Relations*, 30, 97–102.
- Mahlstedt, D. L., & Welsh, L. A. (2005). Perceived causes of physical assault in heterosexual dating relationships. *Violence Against Women*, 11, 447–472.
- Milner, A.N., Baker, E.H. (2017). Athletic Participation and Intimate Partner Violence Victimization: Investigating Sport Involvement, Self-Esteem, and Abuse Patterns for Women and Men. *Journal of Interpersonal Violence*, Vol. 32(2) 268–289
- Milić, A. (2007). *Sociologija porodice. Kritika i izazovi*. Beograd: Čigoja.
- Munoz-Rivas, M. J., Grana, J. L., O’Leary, K. D., & Gonzalez, M. P. (2007). Aggression in adolescent dating relationships: Prevalence, justification, and health consequences. *Journal of Adolescent Health*, 40, 298–304.
- Muslu, G. K., Cenk, S. C., & Sarlak, D. (2017). An Analysis of the Relationship Between High School Students’ Tendency Toward Violence, Self-Esteem, and Competitive Attitude. *Journal of Interpersonal Violence*, 1– 21.
- Niolon, P. H., Kearns, M., Dills, J., Rambo, K., Irving, S., Armstead, T., & Gilbert, L. (2017). Preventing intimate partner violence across the lifespan: A technical package of programs, policies, and practices. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- O’Keefe, M. (1997). Predictors of dating violence among high school students. *Journal of Interpersonal Violence*, 12, 546–568.
- Ostrowsky, M. K. (2010). Are violent people more likely to have low self-esteem or high self-esteem? *Aggression and Violent Behavior*, 15, 69–75.
- Papadakaki, M., Tzamalouka, G.S., Chatzifotiou, S., & Chliaoutakis, J. (2009). Seeking for Risk Factors of Intimat Partner Violence (IPV) in a Greek National Sample The Role of Self-Esteem. *Journal of Interpersonal Violence*, Vol. 24(5), 732–750.
- Ravlić, M. i Raboteg-Šarić, Z. (2004). Skala stavova o ravnopravnosti polova. U: A. Proroković, K. Lacković-Grgin, V. Čubela Adorić i Z. Penezić (ur), *Zbirka psihologijskih skala i upitnika, Sv.2*, (str. 95-103). Zadar: Univerzitet u Zadru.
- Reitzel-Jaffe, D., & Wolfe, D. A. (2001). Predictors of relationship abuse among young men. *Journal of Interpersonal Violence*, 16, 99–115.
- Robins, R. W., Donnellan, M. B., Widaman, K. F., & Conger, R. D. (2010). Evaluating the link between self-esteem and temperament in Mexican origin early adolescents. *Journal of Adolescence*, 33, 403–410.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

- Schwartz, M., O'Leary, S. G., & Kendziora, K. T. (1997). Dating aggression among high school students. *Violence and Victims, 12*, 295-305.
- Shen, A. C-T., Chiu, M. Y-L., & Gao, J.,(2012).Violence Among Chinese Adolescents: The Role of Gender-Role Beliefs and Justification of Violence, *Journal of Interpersonal Violence 27*(6) 1066–1089.
- Shook, N. J., Gerrity, D. A., Jurich, J., & Segrist, A. E. (2000). Courtship violence among college students: A comparison of verbally and physically abusive couples. *Journal of Family Violence, 15*. 1–22.
- Sears, H. A., Byers, E. S., & Price, E. L. (2007). The co-occurrence of adolescent boys' and girls' use of psychologically, physically, and sexually abusive behaviors in their dating relationships. *Journal of Adolescence, 30*, 487-504.
- Simon, T. R., Miller, S., Gorman-Smith, D., Orpinas, P., & Sullivan, T. (2010). Physical dating violence norms and behavior among sixth-grade students from four U.S. sites. *Journal of Early Adolescence, 30*, 395-409.
- Spencer, G. A., & Bryant, S. A. (2000). Dating violence: A comparison of rural, suburban, and urban teens. *Journal of Adolescent Health, 27*, 302-305.
- Stefanile, C., Matera, C., Nerini, A.,1 Puddu, L., Raffagnino, R. (2017). Psychological Predictors of Aggressive Behavior Among Men and Women, *Journal of Interpersonal Violence 1–22*.
- Thomaes, S., Bushman, B. J., Stegge, H., & Olthof, T. (2008). Trumping shame by blasts of noise: Narcissism, self-esteem, shame, and aggression in young adolescents. *Child Development, 79*, 1792-1801.
- Todorović, J. (2005). *Vaspitni stilovi roditelja i samopoštovanje adolescenata*. Niš: Prosveta.
- Tracy, J. L., & Robins, R. W. (2003). "Death of a (narcissistic) salesman": An integrative model of fragile self-esteem. *Psychological Inquiry, 14*, 57-62.
- Wallace, M. T., Barry, C. T., Zeigler-Hill, V., & Green, B. A. (2012). Locus of control as a contributing factor in the relation between self-perception and adolescent aggression. *Aggressive Behavior, 38*, 213-221.
- Wolfe, D. A., Scott, K., Wekerle, C., & Pittman, A. L. (2001). Child maltreatment: Risk of adjustment problems and dating violence in adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*, 282–289.

Ivana Janković**Jelisaveta Todorović***University of Niš, Faculty of Philosophy*

NASILJE U PARTNERSKIM VEZAMA, STAVOVI O RAVNOPRAVNOSTI POLOVA I SAMOPOŠTOVANJE STUDENTKINJA

Sažetak

Cilj ovog rada je ispitati da li se vršenje nasilja u partnerskim vezama kod studentkinja može predviđati na osnovu usvojenih tradicionalnih ili egalitarnih stavova u pogledu ravnopravnosti polova I na osnovu nivoa samopoštovanja, odnosno, procene sopstvene uspešnosti I vrednosti. Uzorak je činilo 180 studentkinja Filozofskog fakulteta u Nišu koje su u poslednjih šest meseci imale iskustvo partnerske veze. Korističen je upitnik o počinjenom partnerskom nasilju (Ajduković, Löw i Sušac , 2011) koji sadrži subskale za procenu počinjenog psihičkog, fizičkog i seksualnog nasilja; skala stavova o ravnopravnosti polova (Ravlić i Raboteg-Šarić, 2004) koja sadrži subskale za procenu stavova u pogledu roditeljskih uloga, socijalno-interpersonalno-heteroseksualnih uloga, profesionalnih, bračnih i obrazovnih uloga I skala samopoštovanja (Rosenberg, 1965). Primenjena regresiona analiza pokazuje da ispitivane prediktivne varijable objašnjavaju 6,2 % varijanse počinjenog psihičkog nasilja, a da su statistički značajni prediktori samo stavovi o bračnim ulogama. Za počinjeno fizičko nasilje ispitivane varijable objašnjavaju 10,8% varijanse, a kao statistički značajni prediktori izdvajaju se samopoštovanje i usvojeni stavovi u pogledu roditeljskih uloga i stavovi o bračnim ulogama. Skala za procenu vršenja seksualnog nasilja se na ispitivanom uzorku pokazala kao nepouzdana te je izuzeta iz dalje analize. Procenat objašnjenja varijanse nije visok, što govori o potrebi ispitivanja povezanosti vršenja partnerskog nasilja sa nekim drugim varijablama.

Ključne reči: *nasilje, partnerske veze, stavovi, ravnopravnost, samopoštovanje*

WHY IS SOCIAL PSYCHOLOGY IMPORTANT FOR DEMOCRACY? FROM OBEDIENCE TO AUTHORITY TO LUCIFER EFFECT

Abstract

The main purpose of this work is to analyse the role and function of social psychology as a tool to strengthen contemporary democracies. For this, I will adopt a double perspective through which I will try to describe the psychological mechanisms that force to obedience. I think that a reflection on this point represents an important topic of discussion on the state of the art of contemporary political institutions and on strategies for building a reasonable political consensus, which is the former characteristic of a truly functioning democracy. The first perspective is historical; the second one is a political philosophical point of view. Since Stanley Milgram (1974) and Solomon Asch (1952) have focused their research on pressure towards conformity, social psychology has taken on a crucial role in understanding society and defining the main aspects of human nature. What kind of influence is able to exercise authority over our moral, economic and social choices? How does power control us? The answers to these questions are not obvious at all. Philip Zimbardo (2007), in his famous "Stanford prison experiment", has elaborated an original description of the true face of human nature. The consequence of that dramatic experiment was that the illusion of natural goodness of human beings turned out to be just an illusion. The comfortable explanation about a rigid and dualistic distinction between good and evil has crashed on the cruel circumstances of real life. As Zimbardo has suggested, systemic and situational power have a strong influence on the way we decide to act in all our social interactions, and on the way we decide to play our social role. All these researches cast a dark shadow on our beliefs and on the real weight of our self-determination power.

Key words: *Social psychology, Democracy, Obedience, Authority, Power*

1. Obedience to Authority

«I was just following orders».

This is one of the phrases that often occurs in the pages of the transcripts of the statements made by the defendants in the proceedings on crimes against humanity and that resounded in the courtroom in Nuremberg and Jerusalem. That is the extreme and dramatic attempt, more or less conscious, to justify nefarious actions, avoiding, or at least trying to mitigate the consequences.

The focal point of such defence revolves around the concept of obedience and the way it affects the nature of individual and collective relationships, and our ability to mediate between the protection and application of what we

consider to be *our values*, our assessment criteria about the opportunity and the justification of the actions, and the requests, the commands, that are given by subjects or institutions which we recognize a certain authority to. However, this is still a superficial description of the complexity and variety of issues related to this concept.

The idea of obedience plays an essential role in building interpersonal dynamics.

In fact, it is possible to affirm that most of our social interactions are based on power relations, and therefore, on the recognition of some hierarchy that obliges, and to some extent legitimate, choices and behaviours, placing them along an ideal ranking of increasing importance and priorities. It is extremely complicated to find a univocal answer to the question: "Why do we obey?" probably due to the fact that such an all-encompassing answer does not seem to exist.

We usually obey on the basis of an act of faith (political, religious, etc.), or of an act of devotion towards who exercises authority or who possesses an intrinsic ability to catalyse interest and to influence attitudes and deliberations. Moreover, We usually obey by reason of a full consonance of values. But one also obeys out of subjection, fear, instinct for preservation or simply because one is incapable of resisting.

The plurality of subjective provisions putting into action by an act of obedience gives an account of the complexity of human nature and of the risk of undue simplification. While the characteristic feature of obedience seems to be the acceptance of asymmetric relations, on the other hand, the nature of this asymmetry constitutes an interesting field of investigation both from the psychological point of view as for the consequences on the political and social structures deriving from it.

In these terms, in fact, the reference to obedience does not yet dissolve the doubts and perplexities about the moral neutrality of the act of obeying, together with the attribution of subjective and objective responsibilities arising from every action.

In other words, what is the relationship between *Obedience* and *Moral*? And to what extent is a subject willing to submit to the obligations and restrictions that come from obedience? Or, saying it differently: how much remains of individual autonomy and how does the conflict between values, responsibilities and restrictions resolve?

These arguments and dilemmas sink their roots deep into the long and jagged path of humanity. The conflict between values and priorities, individual and collective, between reasons of the heart and reasons of state, in fact, has often attracted the attention of philosophers, dramatists and, in more recent times, of psychologists and sociologists.

The tragedy of Antigone and Creon constitutes, in this sense, a classic paradigm on which much has already been written and on which Hegel (1998), among others, has reflected with extreme care and depth.

«I was just following orders».

We submitted our reflections starting from that sentence and it is there that it is now necessary to return.

This controversial sketch of defence, in fact, hides much more than we can believe and leads us to a mature analysis on the behavioural mechanisms of individuals. Starting from the Arendt's (1963) suggestions on the Eichmann trial, social psychology began to examine, on the basis of a different and more sceptical perspective, the true essence of human nature. Eichmann's identikit, his measured composure, the psychological equilibrium detected by the same experts who analysed him during the trial, in fact, mismatched, in a strongly screeching way, to the enormity and cruelty of the actions ascribed to him. The cold performer of the *Final Solution* was a diligent clerk who was busy carrying out the task assigned to him with zeal and dedication. Eichmann's portrait was that of an ordinary man, with a strong sense of family, with a consolidated morality, but able to become, without a bit of remorse, a war criminal, a ruthless accomplice of an apocalyptic genocide.

But what is it that really creates confusion and discomfort in dealing with Eichmann? If we accept the conclusion of Hannah Arendt (1963) we can argue that the existential crisis is determined by discovering *the banality of evil*.

Thus, it is the gloomy halo of normality that disturbs and generates uncertainty. The conciliatory and, by its way, reassuring solution: that an absolute evil can be the product of actions and choices carried out by intrinsically cruel subjects, by monsters which have nothing to do with the peaceful existence of ordinary men, has miserably collapsed under the weight of a blind obedience, devoid of remorse or guilt, assured by specularly superposable common individuals. The veil of the hypocrite respectability had been finally torn off. Humanity revealed all her Hobbesian nudity. The repercussions on social level are, under this perspective, relevant and not negligible. The pervasive and homologating nature of normality deserves attention. The risk of being dragged into a dystopian horizon is a real possibility not at all reassuring. These insights and fears about the future of social relationships suggested to Stanley Milgram a supplement of inquiry and an in-depth study on the subject of obedience to authority. What Milgram tried to understand was the nature of that attitude which, using a meaningful expression, he defined as the *exasperated will* to carry out the task assigned, regardless of the persistence of inner conflicts or the consequences for oneself and others arising from one's own conduct.

The result of his research was surprising and, as it had already happened in the experiment conducted by Solomon Asch (1952) on *pressure towards conformity*, Milgram's study revealed aspects of human nature that belied the conciliatory and optimistic predictions of the colleagues he interviewed, about the ability of the subjects to disengage themselves from morally controversial requests. The percentage of subjects involved in the simulation that accepted, albeit with a more or less bland resistance, to give the electric shocks to the human

cavies worried Milgram a lot. What came out from his research was, moreover, the tendency of the subjects to elaborate strategies of justification for their obedience: the voluntariness of adherence to experiment, the denigration and guilt of the cavy, the recognition of competence of the source of authority and the minimization of their role in the context of experiment, constituted some of the behavioural characteristics that emerged during processing of data and simulation results. Many considerations expressed by participants in the experiment, in fact, did not differ from the declaration of Eichmann and further defendants. The denigration of the other represented an important defence mechanism, a sort of motivational reinforcement which objective was to justify actions that, in other contexts, would be judged execrable.

Moreover, exactly as Eichmann (Arendt, 1963) pointed out in his surreal defence, the parcelling of the action: the fact that, in the context of Milgram's experiment, the subject limited himself to switch a button, led to fragmentation of the consequences and, therefore, to alter, underestimating, the impact of personal responsibility. This is a widespread behaviour in mass phenomena and homologation processes. And that was perhaps the attitude that troubled Milgram more. In fact, social and political repercussions of that attitude worried Milgram a lot.

In general terms, fragmentation of action represents a rewarding strategy in the processes of strengthening authority. Indeed, Milgram noted that an individual, who is unable to judge situations as a whole, will need help and support by some external guide.

This is the way in which authority arises and strengthens by assuming a pervasive role in individual choices and decisions, eventually resulting in the alienation of the subject from himself and from his own autonomy of thought and action.

Fragmentation, however, works in two distinct directions: on the one hand, the unavailability of complete information prevents recipients of authoritarian power from interpreting, judging and evaluating overall the outcome of their actions. And this aspect affects the sense of subjective insecurity and compliance with the sources of authority. On the other hand, the impossibility of expressing a complete judgment represents a sort of anaesthetic for remorse and guilt; the marginality that the subject attributes to his involvement provides an alibi to the consequences produced by subjection to power.

It seems evident that such a model constitutes a risk for the firmness of democratic institutions even today or, perhaps, especially today. If we observe, with due caution and attention the surrounding world, it is easy to see how the atomization process has expanded to such an extent that it is becoming increasingly difficult to acquire a horizon of an overall sense, clear and distinct. This fragmentation permeates every aspect of our daily life. There is no social, political, economic or affective dimension escaping a process of rarefaction like this.

Fragmentation generates fears, apprehension, and insecurity: elements that constitute a fertile ground for expansion of authoritarian forms of control over extremely weak, fickle and faintly benevolent subjects, such as we are.

2. *The Lucifer Effect*

Milgram's research has the undoubted merit of demolishing the traditional Manichaeian vision of human personality. The idea that wickedness constitutes an intrinsic disposition of the human soul and, in this sense, has to be considered a specific prerogative peculiar to some subjects, does not seem to be able to pass a test of verifiability.

Cruelty or, more simply, the choice to carry out potentially harmful behaviour towards defenceless victims is not an exception, nor can it be interpreted as a sort of momentary aberration by a small minority of deviant subjects. The laconic conclusion deriving from the study conducted by Milgram, in fact, is that the impulse to obedience to authority is a common trait to all individuals. From this point of view, trusting in a sort of dispositional superiority does not protect us from pushes to conformism, nor does it preserve us from the psychological pressures produced by situations and contexts that require taking a position and obliging us to choose whose side we are on.

Under this perspective, it is possible to elicit some general considerations. The first one can be explained in the following way: in spite of the incorrigible tendency to overestimate one's moral standard, showing off the personal ability to act, always and in any case, by full agreement with own moral principles (*self-serving bias*), individuals are strongly influenced by the context and the pressures mutually exerted by social environment and groups. In this sense, the desire for belonging and inclusion in what C. S. Lewis (1944) defined as *the inner ring* plays a decisive influence on the ability to act consistently with a moral perspective. The desire for belonging and the need for recognition, as a member of a group, in fact, are essential elements in the definition of personality. The psychological costs resulting from isolation and exclusion represent a burden no one is hardly willing to bear. As many anthropological studies reveal, civil death, exile, often precedes the biological death of the excluded subject. Or to put it sociologically, exclusion generates anomie and ends up dissolving social ties. All of this exerts a strong pressure on the human personality. In fact, every inter-subjective relationship derives from the requirement to satisfy *information needs* and *regulatory needs*. Both of them contribute to create conditions of dependency, legitimizing forms of authority and consolidating hierarchies of power. These needs represent the tools the subjects appeal to under conditions of uncertainty and which allow orienting and situating themselves within an extraneous context. The former, *the information needs*, allow use of knowledge, ideas, and suggestions not directly owned but borrowed from other subjects. The latter, *the regulatory needs*,

respond to the need to adapt, comply with procedures and rules able to favour the processes of inclusion and recognition.

In other words, the need to be accepted within the community dimension influences the predisposition to accept and support norms, rules, and obligations and to submit to forms of authority.

The second general consideration emphasizes the interrelation among dispositional elements, situational forces and power systems. From this point of view, the adaptability of the human species also extends to the moral context. In other words, the choices, the criteria through which a subject interprets the facts and takes a position within a defined social space, constitute the result of a complex system of assessments, relationships, expectations, desires and needs both individual and collective. The emphasis placed on the situational influence and on the impact that the architecture of power exerts on the subjective moral sphere accounts for the consequences on the political level deriving from the way in which interpersonal relations articulate. All of this amplifies the burden on the institutions in the construction and management of social dynamics but, at the same time, it does not intend to diminish the subject's role and responsibilities.

Summing it up, once we set aside the conciliatory story according to which a person born good (or bad), it is possible to state how the new scenario we have before the eyes requires a careful analysis of the contexts and a continuous reference to a conscious participation. Therefore, the study of social behaviour must take into due consideration the convergence among three types of power: *personal*, *situational* and *systemic*. The lack of balance among these three forces determines the occurrence of what Philip Zimbardo (2007) has defined, using a captivating expression: *The Lucifer effect*.

Just like Milgram, in fact, Zimbardo was also attracted to the study of human behaviour under conditions of restriction of freedom or, more generally, under the constraint of some form of authority. The basic idea was to understand how situational variables affected individual choices and attitudes.

For this purpose, in 1971 Zimbardo carried out an experiment. The outcome of that simulation led him to reconfigure the real meaning of his research. What emerged from the dramatic epilogue of the "Stanford Prison Experiment" was, in fact, a theory that suggested a new interpretive perspective on human nature: cruelty was not a dispositional trait, but a product of the interaction between situational and systemic components. The conclusions elaborated by Zimbardo, unfortunately, found further confirmation over thirty years after the Stanford experiment, when the whole world was horrified by the photos of the torture suffered by the prisoners in Abu Ghraib prison. Zimbardo, called as expert for the defence college of one of the torturers, analysing the information obtained from the gruesome documentation collected by the investigators, saw in those violent dynamics the same situations he had experienced during the experiment at Stanford. The escalation of cruelty, the dehumanization process suffered by the prisoners and the transformation of the custodians into torturers, reinforced

his conviction about the modes of manifestation of the *Lucifer effect*. Obviously, it would have been much simpler and probably even politically preferable, to consider those acts of violence as the reckless action of a handful of exalted soldiers whom, by disregarding every order, had transformed a place of detention into a torture chamber. Such a simplified interpretation of the facts would have left the system of power intact and, at the same time, it would have reassured the patriotic consciences of the American people about the correctness of the intervention procedures in war zones merely limiting to ascribe the origin of all that evil to the nefarious action of a few bad apples. Presenting his conclusions, Zimbardo was radically disagreeing with this simplistic explanation. Although acknowledging the subjective responsibilities of the accused, the psychologist pointed out that the problem was not limited to the apples, but rather to the characteristics of the basket that had favoured the decay of those fruits and the degeneration of the entire structure.

Zimbardo listed a long series of factors (both situational and systemic) that had dragged the subjects involved along a spiral, which resulted in physical and psychological torture against the prisoners. As it had already happened at Stanford, a series of errors committed by systemic power holders had helped to create the conditions for those abuses.

Isolation and the constant situation of danger for one's own safety, the lack of control by superiors, the contradictory nature of some orders, the indirect legitimation given to some abuses considered functional to softening prisoners and to obtaining information, useful for the pursuit of the final objective: the fight against terrorism, were just some of the elements that pushed the soldiers involved along the slippery slope of cruelty and torture. The combination and overlap of the two stories (the Stanford experimental simulation and the Abu Ghraib real context) demonstrate the correctness of the theoretical model. The degeneration of the system proceeds to small but decisive steps and leads to the same result: the degeneration of the moral sense of individuals involved. Considering such phenomena as isolated and unrepresentative events contributes to the chronicity of the problem, hides and does not cure the infection, it creates false certainties and dangerous misunderstandings that in the long run undermine the institutions and dissolve any possible social bond.

In this respect, the role of social psychology turns out to be crucial in fostering a full awareness of oneself and in the construction of models capable of introducing effective countermeasures as antidotes to authoritarianism.

The basis of this resolute approach is to promoting conflict as the keystone of relations between individuals and institutions. Indeed, if the submission to an authoritarian power gradually develops through the implementation of negative features: using, for example, *the hostile imagination*, the widespread fear of what is perceived as foreign or different, the fear of losing one's own certainties (social, economic, cultural, etc.), just to mention the most common and pervasive, the only reasonable alternative could be the inversion of this tendency through the

enhancement of positive traits and the acquisition of an ability to affirm one's self.

Zimbardo suggests a sort of functional Decalogue for the pursuit of this purpose. These are some simple behavioural rules that aim to avoid slipping along the inclined plane of self-justification and compliance. The goal is to develop some essential qualities useful to counteract suggestive seduction of power: *self-awareness*, *situational sensitivity* and *practical wisdom to get by in life*. These qualities allow acquiring and strengthening individual autonomy.

The rules suggested by Zimbardo can be summarized as follows:

- 1) Admitting one's mistakes is the first important step along this path of emancipation. Indeed, acquiring a full awareness of own fallibility prevent from yielding to temptation to construct irrational, and falsely conciliatory, justifications.
- 2) Maintaining the level of attention is another useful suggestion that allows us to understand and correctly interpret situational variables that characterize most of our interactions. Attention prevents us from yielding to temptation of habit. Every context, even the one that appears familiar and usual, presents non-negligible elements of novelty. It is precisely because change generates fear that it is necessary to maintain a high level of awareness.
- 3) Taking responsibility for one's actions and choices makes it possible to maintain control of one's own life, and to not delegate others the task to decide and reduce consequences of damaging actions through the mere diffusion of responsibility.
- 4) Upholding oneself and one's identity is another essential strategy to avoid the trap of conformism and dehumanization.
- 5) Everyone has to respect authorities but also be ready to exercise one's own right to dissent. Indeed, in a functioning democracy power is based on mutual recognition and on a constructive conception of obedience. Summing it up, it is possible to argue that legitimacy is given by a reasonable compound of competence and credibility and not by mere authority.
- 6) The need for recognition and inclusion within a social group cannot be bartered with abdication of autonomy. Indeed, the independence of thought is what distinguishes inclusion from mere conformism. Being part of a group means actively contributing to its growth and not simply passively accepting collective decisions or, even worse, conforming to positions and points of view that are in contrast with personal horizon of meaning for the sole purpose of gratifying a superficial desire for membership.
- 7) Correctly interpret the *framing*. The acquisition of this competence is essential in the context of contemporary society where often the captivating nature of packaging conceals the poor quality of its content. Understanding a message means carefully evaluating both the form and the substance of the communicative medium.

- 8) It is crucial to avoid falling into the temporal trap of an eternal present. The ability to determine the correctness of a choice is commensurate with the possibility of considering the outcome of the decision within a time frame that escapes the contingency of the moment. Such an aspect applies not only to individual decisions, but it is a fundamental criterion, an indispensable prerequisite also in the context of political choices. A good political strategy is one that can make its choices by considering stability over time and taking into account a program able to exert its beneficial effects in the medium to long term. Indeed, one of the causes of the crisis of contemporary political systems consists in what we could define as the monopoly of contingency. This choice exclusively produces a shortsighted and short-winded policy: incapable of permanently affecting the social structure.
- 9) Individual freedom and civil rights are not negotiable values. The illusion of greater security cannot be met at the expense of liberty and respect for human dignity.
- 10) Resistance to unjust systems is a real possibility. It is a struggle that, at a first glance, presents itself unequal. Indeed, the asymmetry of forces expressed by the contenders is evident. The scenario we are facing now is this: on the one hand, a system of power able to promote, through propaganda, demonization of dissent and to influence, through coercive mechanisms, choices and orientations of people; on the other hand, isolated individuals which, at least in appearance, are lacking of effective instruments of opposition. However, as history has taught us, the outcome of this conflict is by no means taken for granted. Beyond any rhetorical emphasis, the determination of a single subject can represent a catalyst element able to interrupt the spell of conformism and to weaken that conciliatory attitude that, in a pervasive way, often sediments a sort of stratification of complicity with the dominant authority and which, equally perniciously, ends up consolidating subjection to power. In this respect, heroism and resistance which this rule refers to represent a perfect synthesis between understanding, active participation and responsibility. These are virtues that in some extreme cases require the commitment and sacrifice of a whole life, but which can find their full realization in daily actions, in apparently irrelevant gestures that nevertheless trace deep furrows in the collective consciousness.

The merit of having raised the veil of rational illusion must be attributed to social psychology. The researches of Milgram, Asch and Zimbardo, in fact, allowed us to observe and bring out "*la faiblesse de volonté*" (Elster, 2007) that characterizes the actions of each subject in individual and collective decision-making contexts. The doubt and the fear of social psychologists found a dramatic justification in political and moral consequences of a conformist and irrational drift.

The permeability of consciences makes the boundary between good and evil labile and ethereal and forces us to re-see our judgment on the very concept of consciousness. The background, situations and contexts play a fundamental role in defining our horizon of meaning and, consequently, our choices. Such a perspective implies an enlargement of the dimension of responsibility and, more specifically, a redefinition of space of political and moral responsibilities inside the public sphere.

We must never forget that the voice of a child who shouts with force and conviction: "The King is naked!" is sufficiently strong to unmask arrogance of power and make clear the banality of evil.

References

- Arendt, H. (1963), *Eichmann in Jerusalem*. Italian edition:
Arendt, H. (2001), *La banalità del male. Eichmann a Gerusalemme*. Milano: Feltrinelli.
Asch, S. E. (1952), *Psicologia Sociale*, Torino: Società editrice internazionale.
Elster, J. (2007), *Agir contre soi. La faiblesse de volonté*, Paris: Odile Jacob. Italian edition:
Elster, J. (2008), *La volontà debole*, Bologna: Il Mulino.
Hegel G. W. F. (1998), *Fenomenologia dello Spirito*. Firenze: La Nuova Italia Editrice.
Lewis, C. S. (1944), *The Inner Ring* «Memorial Lecture at King's College», University of London, Retrieved May, 10, 2019 from <https://www.lewissociety.org/innerring/>
Milgram, S. (1974), *Obedience to Authority*. New York: HarperCollins Publishers. Italian edition: Milgram, S. (2003), *Obbedienza all'autorità*. Torino: Giulio Einaudi editore.
Sutherland, S. (2010), *Irrazionalità. Perché la nostra mente ci inganna e come possiamo evitarlo*. Torino: Lindau.
Zimbardo, P. (2007), *The Lucifer Effect. How Good people Turn Evil*. Italian edition:
Zimbardo, P. (2008), *L'effetto Lucifero. Cattivi si diventa?*, Milano: Raffaello Cortina editore.

Vincenzo Maimone

University of Catania

ZAŠTO JE SOCIJALNA PSIHOLOGIJA VAŽNA ZA DEMOKRATIJU? OD POSLUŠNOSTI AUTORITETU DO LUCIFEROVOG EFEKTA

Sažetak

Glavna svrha ovog rada je analiza uloge i funkcije socijalne psihologije kao alata za jačanje savremenih demokratija. Za to ću usvojiti dvostruku perspektivu kroz koju ću pokušati da opišem psihološke mehanizme koji prisiljavaju na poslušnost. Mislim

da razmišljanje o ovoj tački predstavlja važnu temu razgovora o stanju savremenih političkih institucija i o strategijama za izgradnju razumnog političkog konsenzusa, što je bivša karakteristika zaista funkcionalne demokratije. Prva perspektiva je istorijska; drugi je politički filozofski stav. Otkako su Stanley Milgram (1974) i Solomon Asch (1952) svoja istraživanja usredsredili na pritisak ka konformizmu, socijalna psihologija je preuzela ključnu ulogu u razumevanju društva i definisanju glavnih aspekata ljudske prirode. Kakav uticaj je u stanju da izvršava autoritet nad našim moralnim, ekonomskim i socijalnim izborima? Kako nas kontroliše moć? Odgovori na ta pitanja uopšte nisu očigledni. Philip Zimbardo (2007), u svom čuvenom eksperimentu u zatvoru u Stanfordu, razradio je originalan opis pravog lica ljudske prirode. Posledica tog dramatičnog eksperimenta bila je da se iluzija o prirodnoj dobroti ljudskih bića pokazala samo iluzijom. Udobno objašnjenje o krutoj i dualističkoj razlici dobra i zla srušilo se na surove okolnosti stvarnog života. Kao što Zimbardo predlaže, sistemska i situaciona moć imaju snažan uticaj na način na koji se odlučujemo u svim našim društvenim interakcijama i na način na koji odlučujemo da igramo svoju društvenu ulogu. Sva ova istraživanja bacaju tamnu senku na naša uverenja i na stvarnu težinu naše snage samoodređenja.

Ključne reči: Socijalna psihologija, Demokratija, Poslušnost, Autoritet, Moć

THE CORRELATION BETWEEN RIGHT-WING AUTHORITARISM AND LIKING AND ARTISTIC EVALUATION OF ABSTRACT AND REALISTIC MODERN EUROPEAN PAINTINGS

Abstract

This work enquires into the correlation between Right-wing authoritarianism and liking and estimate of the artistic evaluation of representational and abstract paintings of modern European painting. Right-wing authoritarianism was measured by the shorter version of Altemeyer's scale. In this research, we started from the assumption that persons with higher right-wing authoritarianism prefer representational paintings, while those with lower right-wing authoritarianism prefer abstract paintings. Two paintings showing specific objects, as well as two abstract paintings, were used as stimuli. Low and medium negative statistically significant correlations of evaluation of representational and abstract paintings were found on all factors measured. Particular attention was paid to the correlation of authoritarian submission with an artistic evaluation of representational ($r_s = -.208$ $p = .003$) and abstract paintings ($r_s = -.197$ $p = .005$). This correlation is different to the correlation of the other two factors of measurement, and it is higher in assessing the artistic evaluation of representational paintings. Such results can be explained by the nature of authoritarian submission and an artistic value estimated by those who are educated in this field.

Key words: right-wing authoritarianism, modern European painting, liking, artistic evaluation

Introduction

Wilson, Ausman and Mathews (1973) discovered that conservative persons prefer simpler paintings showing specific objects, i.e. representational paintings. On the other hand, liberal persons show preference for complex abstract paintings.

Our research followed this trace. We were interested in artistic preferences of the persons with more prominent right-wing authoritarianism, but in modern European painting. Time frame of the creation of paintings is from the second half of the nineteenth century to the first half of the twentieth, more precisely from the appearance of impressionism to the emergence of completely abstract paintings. Paintings were also classified as representational and abstract, but not as complex or simple.

¹ Corresponding author nemanja.t.djordjevic@gmail.com

Right-wing Authoritarianism

Research on political conventionalism and political liberalism, that is, its connection with personality traits, has existed since the division of the political spectrum on the left and right. Over the past eighty years, several attempts have been made in this research (Carney, Jost and Gosling, 2008). The period of early theories, between 1930 and 1955, was mainly directed towards defining the authoritarianism syndrome. Erich Jaensch was a Nazi psychologist, who put out his theory of two personality types (J and S types) in 1938. The J type of personality had qualities that distinguished a good Nazi, whereas S type was its opposite, whose "unsuitable" personal characteristics were explained by racial defects. Adorno and his associates used some of Jaensch's insights in their research of A personality type, but they turned them around (Aronson, Wilson, and Akert, 2013). According to them, J type was rigid, conventional, intolerant, prone to xenophobia and loyal to the authority. It is a person inclined to adopt the fascist ideology, or as Adorno says, a potential fascist, while Jaensch's S type was seen as a democratic type. Frankfurt school of critical theory supported their interpretation of a political personality in psychoanalysis. Here, a conservative personality was explained, for instance, by anal character. Fromm also explained the collecting orientation by anal character, which is one of his findings on unproductive value orientations (Carney, Jost and Gosling, 2008).

Period of medial theories, between 1955 and 1980, is distinguished by a continuation of study of authoritarian personality and empirical verification of some earlier theoretical postulates. Maccoby and Fromm created a questionnaire and inquired into the biophilous and the necrophilous character. Findings of this research have shown that people who supported liberal and left-wing candidates were positioned in this questionnaire as biophilous, while people who supported conservative and right-wing candidates were positioned as mechanistic (Fromm, 2016). According to Tomkins's theory of ideological polarization (Tomkins, 1963), left-wingers and right-wingers have two different views of the world. Leftists hold the belief that people are essentially good and that society's role is to support human creativity and experience. Persons who are inclined towards right-wing orientation consider people as essentially corrupt, and they think the role of society is to control people and impose a code of conduct. Wilson's dynamic theory of conservatism (Stacey, 1977) emotional differences between liberals and conservatives. Wilson and his associates suggest that conservatism is defined by "genetic" and "environmental" factors.

Genetic factors are: anxiety, aversion to stimuli and low intelligence quotient. Environmental factors include aggressive and unstable behavior of the parents, low self-esteem and lower social class. Some source of threat or uncertainty in the outside world are considered triggers for conservative behavior.

Recent theories, which have appeared since 1980, have largely been focused on the dimensions of open-mindedness and closed-mindedness when regarding

that problem. In some research it has been found out that liberal persons score higher when extroversion, cognitive flexibility and integrative complexity are measured. Conservative persons have tendency to show a need for order, structure, closeness and decisiveness (Kotam, Dajc-Uler, Mastors, and Preston, 2010). In other research it was found that conservative persons score higher on the scale of perceiving the world as dangerous (Jost, et al., 2007). In a longitudinal research of Block's premises (Carney, Jost, and Gosling, 2008), it was found that children possess characteristics that correspond to either liberal or conservative values, long before they start positioning themselves between the oppositional poles of political spectrum.

The latest among indirect approaches to measuring conservatism are Social Dominance Orientation (SDO) and Right-Wing Authoritarianism (RWA). The first of these two reflects an individual's relationship and establishment of intragroup hierarchy and inequality. Although connected with conservatism, Social Dominance Orientation is not completely in line with it (Asbrock, Sibley and Duckitt, 2010). Right-wing Authoritarianism is a personal and ideological variable that reflects readiness to subjugate to the authority, support social conventions and norms, and hostility towards those who don't adhere to them. This concept is connected with conservatism, but it cannot always be equaled with it (Altemeyer, 1981). Right-wing Authoritarianism itself is not linked only to the political right-wing, as it can be concluded from its name. Namely, Altemeyer points on several places that it is a psychological right-wing, not political or economic. According to him, this scale doesn't identify only political right-wingers, but left-wingers and all those who are authoritarian as well (Altemeyer, 1996; Petrović, 2001).

Ingrid Zakrisson has undertaken shortening of the original Altemeyer's scale and its adaptation to the Swedish sample (2005). When translating the original scale, it was taken care that items are generally shorter. The word "state" has been replaced with the word "society" in all items, which was done in order to reduce the chance of linking the contents of items to nationalism. The words which could be offensive were found in four items, and they were replaced with mild variants, too. The items that are recorded conversely have been added.

Paintings

Considering the need to catch the light fast and the very technique of painting, as well as the fact that the representation was not real in the first place, but rather a representation of the artist's experience (impression) of what they were painting, which could have vanished quickly, the result was the decomposition of the object in the painting, which cannot be said to have been the clear intention of these painters. The first is the painting by Claude Monet – Impression: Sunrise. With the separation of Manet's followers from their mentor and the first exhibition in photographer Nadar's studio (Trifunović 1982), with this

painting, the impressionism got its name, the godfather was a malicious critic. Presented as scandalous in the beginning, ridiculed, in 1882 its creator received the medal from The Legion of Honor, and by then the movement was already widely accepted by art groups and broad audience (Janson & Janson, 2016).

The decomposition of the object continued with pointillism, fauvism and then futurism, which base their technique on a dot, a smear and a line, respectively (Laure, 2014). Under the influence of Van Gogh's painting, fauvism "freed itself of color", i.e. its connection with the object, but it was certainly going to be under the influence of the symbolist heritage, Gauguin and Les Nabis. The sensory impression of external reality no longer needed to be transmitted to the painting, but the inner visions of a painter freed of the strict scientific approach. The trend would continue in the future movements, the pinnacle being the expressionism, some of whose representatives (Kandinsky), in their future development would cross the line of abstract painting. Fauvism, animalism, appeared after the first exhibition of Van Gogh's painting. Van Gogh's work was a real revelation for Matisse, Derain and Vlaminck. The third Autumn Salon (1905) in Grand Palais is considered as the start of fauvism. Members of this movement, instead of the pointillist dot, adopt a smear. Matisse's painting "Luxury, peace, and pleasure" (1904), was chosen from this period, as the painting that heralded fauvism (Laure, 2014).

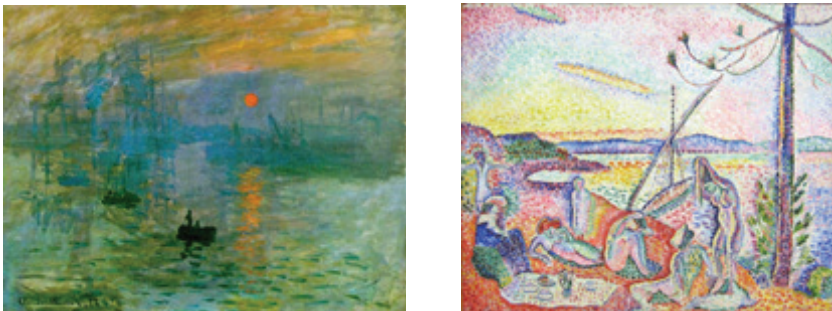


Figure 1

Representational paintings - Claude Monet – Impression, sunrise and Henri Matisse - Luxe, Calme et Volupté

The development of Wassily Kandinsky "lasted for ten years, which enabled him to summarize impressionism, secession, fauvism and expressionism in his paintings. He eliminates the object in the painting, and thus the soul arrives to an objectless, complex, supersensory vibration" (Trifunović, 1982, p. 63). Musicality was expressed through harmony of color. Further development of his art moved from the richness of color to strict compositions, which coincided with his appointment as a professor at the Bauhaus.

Piet Mondrian, under the influence of analytical cubism, deconstructs reality into a linear thread, from the original spatial vagueness and setting the color parts without support only to replace it with a strict orthogonal scheme,

since he thought that behind the natural forms, which are changeable, there is an unchangeable reality (Trifunović, 1982). With this grid, there came separation from cubism. In the magazine "De Stijl" the painter expressed his theoretical postulate for the neoplasticism. He reduced the palette to the basic colors; whose tone is always the same. In the painting "Composition with Large Red Plane, Yellow, Black, Gray, and Blue" the grid and the color seem to go over the boundaries of the canvas, which suggests that they are a part of a bigger whole (Laure, 2014). As the last stage of abstraction, but not the end of painting, the end being, in a way, reached in Russia by Malevich with his "White square (quadrilateral) on white background", for this research, Piet Mondrian's work "Composition with Large Red Plane, Yellow, Black, Gray, and Blue" was chosen. According to Laure (2014), in Mondrian's work, horizontal lines represent the feminine while vertical lines represent the masculine principle.

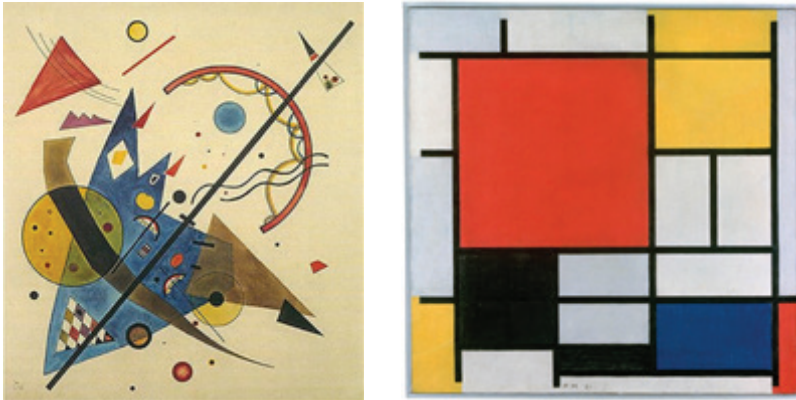


Figure 2

Abstract paintings - Wassily Kandinsky – Sharp Angles and Piet Mondrian - Composition with Large Red Plane, Yellow, Black, Grey and Blue

Method

The research had the goal of determining the correlation between right-wing authoritarianism and the liking and the artistic evaluation of paintings which show concrete objects, and abstract paintings which belong to the period of modern European painting. The research had the following tasks: 1) to determine the relationship of right-wing authoritarianism to the liking of representational and abstract paintings; 2) to determine the relationship of right-wing authoritarianism and the artistic evaluation of representational and abstract paintings.

The hypothesis was that the people with higher right-wing authoritarianism prefer representational paintings and they deem them artistically worthier, while

people with lower right-wing authoritarianism prefer abstract paintings and they deem them artistically worthier.

Sample and questioning procedure

Sample consisted of 200 people, 123 women (61,5%) and 77 men (38,5%). Average age was $M=30,80$ (men 30,44, and women 31,02) $SD=10,34$. Most people had finished secondary school, 77 (37,5% of the sample) and university (42% of the sample). The number of people who said they had no education when it came to history of art was $N=172$, while the number of those with art history education was $N=28$.

The questionnaire was created using Google forms and given over the internet. The first part deals with the basic socio-demographic data: gender, age, education. The second part consists of an instrument used to record right-wing authoritarianism (RWA). The third part consists of, in the first place, two representational paintings, and then two abstract paintings. Below each picture are two scales, consisting of nine degrees ranging from *I don't like it at all* to *I like it very much* and *I think that this picture doesn't have artistic value* to *I think that this picture has great artistic value*.

To examine authoritarianism, a short version of the scale (RWA) by Ingrid Zakrisson was used (Zakrisson, 2005). During the construction of this short scale, great care was taken to reduce correlation with SDO scale, so the final short version, does not correlate statistically to a great extent with the above-mentioned scale. The sentences in this version are shorter when compared with the original and some terms were avoided in order to neutralize the influence of their extreme nature to the respondents' answers, who would, in the spirit of the times, show less extremity than they might possess. The short version of the scale still has three subscales to measure: conventionalism, authoritarian aggression and authoritarian submission (Altemeyer, 1981). Neither this one nor the previous scale is susceptible to gender differences (Altemeyer, 1981; Zakrisson, 2005), however, there is a possibility of a difference between age groups (Zakrisson, 2005).

Results

Tables 1 and 2 show descriptive statistics for all variables in research.

Table 1

Descriptive statistics for the independent variables in the research listed according to the factors measured

	M	SD	Mdn
conventionalism	3.44	1.39	3.50
authoritarian aggression	4.73	1.83	5.00
authoritarian submission	3.48	1.24	3.60

Table 2
Descriptive statistics for the dependent variables in the research

	M	SD	Mdn
liking of representational paintings	5.91	1.59	6.00
liking of abstract paintings	4.49	2.04	4.50
artistic evaluation of representational painting	6.16	1.60	6.25
artistic evaluation of abstract paintings	5.31	2.32	5.50

The conditions for the application of parametric techniques were not met.

Since the instrument is not adapted for the sample used in this research, it was verified whether there are any differences between men and women regarding Right-Wing Authoritarianism. As the data are not normally distributed, the Mann Whitney U test was used. There was no statistically significant difference between men and women found on any factors measured. For the factor conventionalism $U=4088.5$, $p=.104$, $r=.14$, for the factor authoritarian aggression $U=4299$, $p=.272$, $r=.08$, and for the factor authoritarian submission $U=3969$, $p=.054$, $r=.14$.

Table 3
The correlation between the factors of right-wing authoritarianism

RWA	conventionalism	authoritarian aggression	authoritarian submission
conventionalism	1.00	.67**	.44**
authoritarian aggression	.67**	1.00	.27**
authoritarian submission	.44**	.27**	1.00

The correlation between Conventionalism and the Authoritarian aggression is medium ($r_s=.67$, $p=.000$). It is the same between Conventionalism and Authoritarian submission ($r_s=.44$, $p=.000$), whereas the correlation between Authoritarian aggression and Authoritarian submission is low ($r_s=-.27$, $p=.000$).

Table 4
The correlation between Right-Wing Authoritarianism and art preferences

RWA	liking		artistic evaluation	
	representational	abstract	representational	abstract
conventionalism	-.07	-.13	-.28**	-.38**
authoritarian aggression	-.02	-.13	-.15*	-.41**
authoritarian submission	-.09	-.12	-.21**	-.20**

As can be seen in Table 4, the liking of representational and abstract paintings is not in statistically significant correlation with right-wing authoritarianism, on any of the factors.

On the other hand, there is statistically significant negative correlation between the artistic evaluation and right-wing authoritarianism based on all three factors. Namely, the artistic evaluation of representational paintings is in low negative correlation, whereas the artistic evaluation of abstract paintings is in medium negative correlation, except for the factor of Authoritarian submission, which is going to be discussed separately.

Right-wing authoritarianism is in negative statistically significant correlation with the artistic evaluation of both representational and abstract paintings. However, the correlation with abstract paintings is higher than the one with the representational paintings. This ratio proves the presupposition that people with more pronounced right-wing authoritarianism give more artistic value to the paintings which show certain objects, in comparison to those which do not, that is, in comparison with the ones which show abstract objects.

The correlation of the third factor - Authoritarian submission shows a different trend. Its correlation with artistic evaluation of representational paintings ($r_s = -.21, p = .003$) is a little higher than the correlation with the artistic evaluation of abstract paintings ($r_s = -.20, p = .005$). Nevertheless, both of these correlations are low and negative.

When the sample is divided into the people who claimed they have an education in the field of art history and the ones who do not, we get slightly different correlations, which can be seen in Table 5.

Table 5

The correlation between Right-Wing Authoritarianism and art preferences without people educated in the field of art history

RWA	liking		artistic evaluation	
	representational	abstract	representational	abstract
conventionalism	-.07	-.15	-.28**	-.39**
authoritarian aggression	-.02	-.14	-.16**	-.43**
authoritarian submission	-.08	-.13	-.18*	-.19*

Here, the correlations between the first and the second factor and artistic evaluation retain the same ratio and they are of the same level. The change occurs in the correlation of authoritarian submission. The correlation with artistic evaluation of representational paintings is now lower ($r_s = -.18, p = .016$) than the correlation with artistic evaluation of abstract paintings ($r_s = -.19, p = .012$). However, these differences remain minimal. Since the number of people who claimed they had an education in the field of art history was rather small, it was pointless to show these correlations.

Discussion

The ratio between correlations, though negative ones, supports the hypothesis (only its second part, though), that people with more pronounced right-wing authoritarianism prefer paintings which show concrete objects to the ones which show abstract objects.

As we have seen in the results, right-wing authoritarianism is not connected to the liking of paintings. No matter how authoritarian people are, they prefer paintings based on their own inner criteria.

All we are left with is to try and understand the reason why this negative correlation appears, as far as representational paintings are concerned. Namely, this still means that people with more pronounced right-wing authoritarianism will like these paintings less. However, although paintings which show a specific object were the subject of this study, these paintings are still not representational in the way that paintings from, for example, some earlier periods of painting are, such as Renaissance or French academicism. Thus, as it was mentioned earlier, impressionism commenced, and later art movements further developed, deconstruction of objects in paintings. In our particular case, we can see that the figures of people and other objects in Matisse's painting haven't got clear outlines, and they seem as if they were intertwined with other objects around them. It's a similar with Monet's painting *Impression, Sunrise*. Accordingly, here we perceive that for the people with pronounced right-wing authoritarianism this trend, at the very beginning of Modern European painting, was enough to place low artistic value on these paintings. This may be in comparison to some earlier periods, but it remains to be determined in a study to follow.

The difference in correlation between conventionalism and artistic evaluation of representational and abstract paintings is not so big as correlation of authoritarian submission. This certainly has to do with the nature of conventionalism as a factor inside this model. Namely, conventionalism itself is a code for the way one should behave (Petrović, 2001). Accordingly, this does not represent that 'striking', behavioral part of right-wing authoritarianism, like authoritarian aggression. This is exactly what the greatest difference in correlation shows, on this very factor – authoritarian aggression. Consequently, on authoritarian aggression the most striking difference is between the artistic evaluation of representational and abstract paintings. Altemeyer (Altemeyer, 1996) considers aggression harming another person on purpose. This harm is not necessarily physical, but it implies making or causing a state that every person would like to avoid. Authoritarian people show a disposition to control other people's behavior by punishment (Petrović, 2001). Here we find a framework for understanding the results that were obtained. Namely, since the only way of causing harm under these circumstances was to evaluate paintings as artistically less valuable, because they are different from these people's aesthetic requirements, this is exactly what they did. The existence of negative correlation with representational paintings can also be

understood within the same framework. As it was mentioned earlier, these paintings, although representational, are not representational in the classical sense. Accordingly, these paintings are also being 'punished', but in a more moderate manner than the abstract ones.

There's a striking difference in the correlation between authoritarian submission and artistic evaluation. Although the difference between the correlations is slight, the fact that negative correlation is lower with artistic evaluation of abstract paintings than the representational ones still remains. This can be interpreted in two ways. First, in authoritarian submission a precise authority is lacking, in this case, an artistic one. This authority could be the one coming out of the educational system, which is lacking here, so the process of evaluation favored the paintings which, with its structure, themes and artistic manner, come across as more difficult to understand and less ordinary, and thus more valuable. The correlation of the factors of right-wing authoritarianism shows that the correlation between conventionalism and authoritarian aggression is medium, whereas the correlation between authoritarian aggression and authoritarian submission is low, which is in accordance with conclusion mentioned before. The other way of understanding this manifestation is some kind of secret disagreement with authority, which certainly sees realism as a convention. When the part of the sample which consists of the people who claim they possess no knowledge of art history is analyzed, this correlation changes. The level of correlation remains unchanged, as well as a difference. However, the correlation is now higher with artistic evaluation of abstract paintings. Accordingly, it can be concluded that the knowledge of art and painting had a significant part in this. Unfortunately, since the number of people who claim they have an education in the field of art history is rather small, further analysis cannot be carried out.

Conclusion

Our research has shown that people with higher right-wing authoritarianism consider abstract paintings less artistically valuable than representational paintings, which is in accordance with the results of the research carried out by Glenn and his associates (Wilson, Ausman, & Mathews, 1973). However, the connection to the preference of the paintings, that is, the liking, was not found. The reason for the fact that with the increase in right-wing authoritarianism representational paintings get evaluated as less artistically valuable, that is to say, the correlation is negative here, even though not as much as with abstract paintings, could be the fact that these paintings are also modernist.

Further research is needed, in which paintings created during both earlier and later art movements will be included. Furthermore, it is necessary to include more extensively in the research art history education, where this variable would not be solely registered. Accordingly, it is necessary to include in the research the

same number of people with and without art history education. Bearing this in mind, further research could provide more detailed information about how right-wing authoritarianism is connected to the preference for representational or abstract paintings.

References

- Altemeyer, B. (1981). *Right-Wing Authoritarianism*. Winnipeg: University of Manitoba Press.
- Aronson, E., Wilson, T., & Akert, R. (2013). *Socijalna psihologija*. Beograd: Mate.
- Asbrock, F., Sibley, C., & Duckitt, J. (2010). Right-Wing Authoritarianism and Social Dominance Orientation and the Dimensions of Generalized Prejudice: A Longitudinal Test. *European Journal of Personality*(24), 324-340. doi:10.1002/per.746
- Carney, D., Jost, J., & Gosling, S. P. (2008). The Secret Lives of Liberals and Conservatives: Personality Profiles, Interaction Styles, and the Things They Leave Behind. *Political Psychology*, 29(6), 807-839.
- From, E. (2016). *Anatomija ljudske destruktivnosti*. Podgorica: Nova knjiga.
- Janson, E. F., & Janson, H. V. (2016). *Istorija umetnosti*. Zemun: Begem comerc.
- Jost, J., Napier, J., Thorisdottir, H., Gosling, S., Palfai, T., & Ostafin, B. (2007). Are Needs to Manage Uncertainty and Threat Associated With Political Conservatism or Ideological Extremity? *Personality and Social Psychology Bulletin*, 33, 989-1007.
- Kotam, M., Dajc-Uler, B., Mastors, E., & Preston, T. (2010). *Uvod u političku psihologiju*. Zagreb: Mate.
- Laure, D. (2014). *Istorija umetnosti XX veka*. Beograd: Clio.
- Petrović, N. (2001). Specifikacija elemenata autoritarnosti u modelu Boba Altemejera. *Psihologija*, 1–2, 169–194.
- Stacey, B. (1977). The psychology of conservatism. Part II: Wilson's theory and general trends in the study of conservatism. *New Zealand Psychologist*, 6, 109-123.
- Tomkins, S. (1963). Left and right: A basic dimension of ideology and personality. in R. White, *The study of lives* (388–411). Chicago: Atherton.
- Wilson, G. D., Ausman, J., & Mathews, T. R. (1973). Conservatism and Art Preferences. *Journal of Personality and Social Psychology*, 25(2), 286-288.
- Zakrisson, I. (2005). Constuction of a short version od the Right-Wing Authoritarianism. *Personality and Individual Differences*(39), 863-872.
- Trifunović, L. (1982). *Slikarski pravci XX veka*. Priština: Jedinstvo.

Nemanja Đorđević

Univerzitet u Nišu, Filozofski fakultet

KORELACIJA IZMEĐU AUTORITARIZMA DESNOG KRILA, DOPADANJA I PROCENE APSTRAKTNIH I REPREZENTACIJSKIH SLIKA MODERNOG EVROPSKOG SLIKARSTVA

U radu je ispitivana povezanost autoritarizma desnog krila sa dopadanjem i procenom umetničke vrednosti reprezentacijskih i apstraktnih slika modernog evropskog slikarstva. Autoritarizam desnog krila je ispitivan kraćom verzijom Altermejerove skale, čiji je autor Ingrid Zakrisson, a koja je prevedena na srpski jezik za ovu priliku. U istraživanju smo pošli od pretpostavke da osobe sa višim autoritarizmom desnog krila preferiraju reprezentacijske slike, dok oni sa nižim autoritarizmom desnog krila preferiraju apstraktne slike. Uzorak je činilo N=200 ispitanika prosečne starosti M=30.8 godina. Kao stimulusi korišćene su dve slike na kojima su prikazani konkretni objekti (Mone „Impresija – rađanje sunca“ i Matis „Luksuz, mir i naslada“) i dve apstraktne slike (Kandinski „Naglašeni uglovi“ i Mondrijan „Kompozicija sa velikom crvenom ravni, žutom, crnom, sivom i plavom“). Nađene su niske i srednje negativne statistički značajne korelacije procene umetničke vrednosti reprezentacijskih i apstraktnih slika na sva tri predmeta merenja. Posebno je posvećena pažnja korelaciji autoritarne submisivnosti sa procenom umetničke vrednosti reprezentacijskih i apstraktnih slika. Ova korelacija je različita od korelacija druga dva predmeta merenja, i viša je kod procenom umetničke vrednosti reprezentacijskih slika. Pokušaj objašnjenja ovakvih rezultata je prirodom autoritarne submisivnosti i procene umetničke vrednosti onih koji poseduju obrazovanje u ovoj oblasti. Naime, kada se iz uzorka isključe osobe sa obrazovanjem u oblasti istorije umetnosti ova korelacija ostaje negativna ali i veća sa procenom umetničke vrednosti apstraktnih u odnosu na reprezentacijske slike.

Ključne reči: autoritarizam desnog krila, moderno evropsko slikarstvo, dopadanje, procena umetničke vrednosti

CULTURE TYPES AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR IN AN IT AND TELECOMMUNICATIONS COMPANY

Abstract

This research paper explores the organizational culture types that form the profile of a company, operating in the IT and telecommunications sector. 237 out of 388 employees filled in the questionnaires or this is around 61% of all employees. The majority of those have a financially oriented professional profile, aged around 31 years and highly educated, working for the company between 1 and 3 years (around 50%). The results show that based on the Cameron and Quinn model (using a 16-item questionnaire, evaluated by a 5-degree Likert scale) the organization has high levels of control and internal orientation. The leading organizational culture type is the market culture type (M=14,31), followed closely by the hierarchy culture (M=14,24). It's important to be noted that the main employee's profile is financially oriented (business analysts, accountants, financial controllers, etc.). Some forms of citizenship behavior are also examined based on the Van Dyne model (34 items, 5-degree Likert scale). Obedience has the highest mean value of M=3,77, followed by participation (M=3,48) and loyalty (M=3,25). The correlations show moderate to high levels of relationships between all the four culture types (clan and adhocracy culture types are the other two) and all forms of citizenship behaviors in scope. The results are valuable from a practical point of view and are the basis of creating a whole organizational development and change management program within the organization.

Key words: organizational culture types, obedience, participation, loyalty, citizenship behavior

Culture Types Model

Organizational culture is one of the most influential factors when it comes to the effectiveness of certain company. It focuses on the basic values, perceptions, strategic orientations and set the standards for future development. There are different approaches for analyzing the organizational culture. One of the most influential in the history of business is the competing values framework (Cameron & Quinn, 2011). Initially, it emerged from empirical studies on what makes the organization effective, what are the key indicators of success and effective performance (Quinn & Rohrbaugh, 1983). The framework helps managers in different companies to manage internal relations, differences and similarities, to

¹ corresponding author biliana.tsv.alex@gmail.com

take into account not only internal parameters but also their relationship with the external environment. The competing values framework differentiates two main value orientations:

- Orientation toward the external environment or the internal environment.
- Orientation toward flexibility and freedom of action and stability and control.

Based on that model developed by Cameron and Quinn four cultural types are formed (Cameron & Quinn, 2011). Usually an organizational culture profile is created for every organization where there might be a shift to one or more types. The four types of culture are clan, adhocracy, hierarchy and market. Clan culture is oriented toward support for the company members and it encourages participation and cooperation as attitude. The focus is on people, there is mutual trust, team spirit and support, also the individual development is encouraged. The decision-making is in an informal environment. Organizations with clan culture are like large families where motivational programs are often applied and teamwork is strongly encouraged. The purpose of the management is to ensure good conditions for the employees and clients are seen as a partner. Specific things for the adhocracy culture are search of new information, creativity, openness to change, experimentation. Managers expect employees to be dedicated and involved actively in the work. The dynamic, entrepreneurial and creative work environment is typical for this type of culture. The hierarchy culture emphasizes on authority, rationality, procedures and division of work. Rules are important and respected and they ensure order and predictability. The structure of organizations with such orientation is hierarchical and communication is usually top-down. Companies with market culture are oriented towards achieving the objectives. Tasks have to be accomplished, the focus is on rationality, performance indicators, accountability and salaries.

The competing values framework and, accordingly, the questionnaire developed on this basis, allows the assessment and measurement of six key characteristics of organizational culture that predict the success of an organization. These aspects are defined by Cameron and Quinn (2011) as it follows:

- dominant characteristics
- organizational leadership
- management of employees
- organization glue
- strategic emphases
- criteria of success

Those key characteristics emphasize the complexity of the organizational culture and outline its importance for managing the competitiveness of the companies. They are also closely related with the organizational life and behavior of the employees. It is not only about the formal rules and procedures but it is

also about everything that happens “in the meanwhile”. All that goes beyond the expected and supports the basic understandings and strategic overview is more than welcomed. The organizational success is measure both with the formal and official business results and the “soft” aspects like employee motivation, satisfaction and involvement.

Organizational Citizenship Behavior Concept

Organizational behavior as a whole is a scientific sphere of great interest that explores the complex relationships between the organization and its employees. It focuses on the mutual expectancies and contributions of both sides (March & Simon, 1958). How people behave within the organizations and why they are behaving in a specific way is a subject of various studies. More interesting, however, is what makes them put extra efforts in what they do? What is the key driver of performing more without being asked for that? (Ilieva & Alexandrova, 2017).

Dennis Organ is the first who defines the concept as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization” (Organ, 1988, p.4). That’s why it is usually associated with extra-role (Katz & Kahn, 1966;1978; Zhu, 2013) or prosocial behavior (Brief & Motowidlo, 1986; Puffer, 1987), organizational spontaneity and other similar (Van Dyne, et al., 1994; Smith, et al., 1983; Podsakoff, et al., 2000). Other authors consider the citizenship behavior close to the contextual performance – a behavior that extends the range of the different processes out of the requirements of the specific job (Borman & Motowidlo, 1997). This kind of behavior can also mediate the interpersonal relationship and work dedication (Spector & Fox, 2002).

There are two main research tendencies in the analysis of organizational citizenship behavior (OCB) (Ilieva, 2006). The first of it is related with the “active citizenship syndrome” (Van Dyne, et al., 1994). This syndrome includes three categories based on civic citizenship concept. Obedience involves respect to structure and processes. Legal authority is well recognized and the law is strictly followed. Loyalty is related to serving the interests of the community and its values. Loyal employees promote their organization within their social and professional networks, protect it from external influences and volunteer for some extra activities in the name of the well-being of all. The third category of that syndrome is participation. It is the active and responsible involvement in the organizational processes that also includes constant gathering of information and exchange of ideas.

The other perspective of the organizational citizenship analysis comes from social psychology and the idea of prosocial behavior and altruism. This view is connected with the willingness to help others and to assist their adaptation

process within the organization. It is composed of two elements of citizenship behavior – altruism and general compliance (Smith, et al., 1983). Altruism is understood in the terms of helping a specific person within the organization during working processes. General compliance has wider meaning and it is more impersonal, related to consciousness and following the rules for the sake of the system itself. It is closer to the “good soldier” concept (Organ, 1988).

There are not so many researches that explore the relations between the organizational culture and citizenship behavior. The few found are done by Ilieva (2006). The aim of this paper is to analyze the practical aspects of those relations in a leading company on the Bulgarian market. Based on the theoretical review it is hypothesized that specific culture types will correlate with certain organizational citizenship behaviors (clan culture and participation due to the social element; hierarchy culture and obedience due to the orientation to strict order, etc.).

Research Methodology

The Organizational Culture Questionnaire, created by Meschi and Roger (1994), is applied to the measurement of organizational culture. It is based on the model of competing values developed by Kim Cameron and Robert Quinn (Cameron and Quinn, 1999), providing an opportunity to measure four types of culture in an organization – clan, hierarchy, market and adhocracy. The organizational culture questionnaire contains 16 items rated with a 5-degree Likert scale (1 = Totally disagree, 5 = Totally agree). The questionnaire is standardized for the Bulgarian environment and shows good psychometric characteristics: Cronbach's $\alpha = 0,73$ (Ilieva, 2006). In the current study, the psychometric characteristics of the questionnaire are verified by factor and item analysis and it shows good values - Cronbach's $\alpha=0,92$.

The questionnaire for organizational citizenship behavior (Van Dyne, et al., 1994) presents the construct as multidimensional. It includes obedience, loyalty and participation. After an exploratory factor analysis 34 (out of 54) items are proposed. Initially, they form 5 factors but after additional statistical operations the final solution includes 3.

Obedience as a factor includes 11 items and has internal consistency of $\alpha=0,86$. Some of those questions are: Most of the people in the organization: “Always come at work on time”; “Do not meet all deadlines set by organization (reversed item)”, etc.

Participation also includes 11 items and has internal consistency of $\alpha=0,84$. Some of the items are: Most of the people in the organization: “Encourage other to speak up at meetings”; “Have difficulty cooperating with others on projects”, etc.

Loyalty contains 12 items and its internal consistency is $\alpha=0,82$. Some of the questions are: Most of the people in the organization: “Represent organization favorably to outsiders”; “Do not defend organization when employees criticize it (reversed item)”, etc.

The internal consistency of the whole questionnaire is $\alpha=0,92$. This is also a reliable value that reconfirms the organizational citizenship construct that is measured.

The aim of the current study is to picture the culture type profile of an IT and telecommunications company, operating on the Bulgarian market (the company itself is an international one). It also explores the correlations of that with some forms of organizational citizenship behavior.

Sample

237 of the company's employees took part in this research which is around 61% of all employees. 203 participants stated their gender where 58,1% of them are women and 41,9% are men. The mean value of the age of the employees is 31 years which is line with the trends in that sector (197 people answered that question). In the sample 54,8% of the employees are aged between 25 and 30 years; 24,4% - 31-35 year; 9,6% under 25; 7,6% are aged between 36 and 40 years; 2,5% - 41-45 years and only 1% of the participants are 50+ years.

Another criterion that is taken into consideration is the working experience within in the organization. All 237 participants responded as this question was obligatory. 27,4% of the employees are working for that company between 2 and 3 years; 24,5% - 1-2 years; 21,5% - between 6 months and a year; 14,8% of the employees are in their probation period (less than 6 months working for that organization) and 11,8% are the employees with highest working experience in the organization – more than 3 years.

The other obligatory positional factor was the seniority level where the differentiation is done between managers (12,7% out of all 237 participants) and non-managers (87,3%). In the first group are counted all managerial levels which in this case are the heads of departments and the team leaders. Non-managers are all other specialists – interns, juniors and seniors.

The data was gathered in the spring of 2018 via the online platform Google Docs. The survey was intensively promoted through internal communication channels within the organization. It was voluntary and anonymous. The results are analyzed with IBM SPSS Statistics version 21.

The profile of the IT and Telecommunications company that is explored

The company that is explored is a leader on the European market in the IT and telecommunications sector. It was established in 1988 in France with main focus IT services and consulting. The company opened its office in Bulgaria in 2010. Then in 2016 on a global level there was an acquisition of one of the biggest

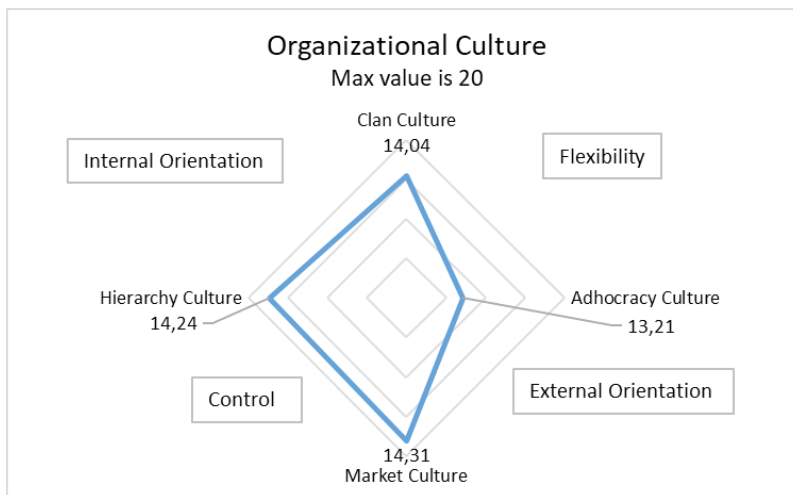
telecommunications companies in Europe (Germany based). As of now the organization has more than 1000 employees in Bulgaria separated in two main business lines – IT services support and delivery and financial services coverage for more than 20 locations globally.

The focus of this research is the financial shared services center branch of the company. It is part of the former German telecommunications company and opened doors in 2014. Effective 01.01.2019 the company is legally merged to the French mother company. For almost 4 years the number of the employees grew immensely and now it is 400+. The main job profile is of a financial business analyst where the financial services are strictly separated on an operational level. It has accountants, financial controllers, accounts payables/receivables specialist. Together with that some other functions are also covered – order to cash, supply chain, IT service delivery, global HR operations, etc.

This research is also part of the integration process within the mother company. It is supported by the managerial team on the local level. A program for supporting the organizational change is also in progress. The main driver of this process is the local HR Team of the company.

Culture types profile in the organisation

One of the main goals of this research is to define the culture types' characteristics in the organization in scope. Based on the data gathered the following profile was created.



Picture 1. Organizational culture profile

Market culture seems to be the leading culture type with M=14,31. Strict work organization in the time of active integration with the mother company is very important for the successful completion of the daily tasks. That is why the hierarchy culture type is ranked on the second place with M=14,24. Clan culture

is put on the 3rd place with M=14,04. The least presented culture type is the adhocracy one with M=13,21.

Relations between the culture types and the OCB forms in the organization

The other organizational aspect that is analyzed are the forms of citizenship behavior. The results show that obedience is the mostly valued one (M=3,77), followed by participation (M=3,48) and loyalty (M=3,25).

What is more interesting are the correlations that occurred between the different culture types and the organizational citizenship behavior forms. All those are statistically significant at the 0.01 level.

Table 1. Correlations between the culture types and the forms of OCB

	Clan Culture	Adhocracy Culture	Market Culture	Hierarchy Culture
Loyalty	,45**	,46**	,18**	,37**
Obedience	,42**	,42**	,27**	,43**
Participation	,52**	,44**	,23**	,41**

** . Correlation is significant at the 0.01 level (2-tailed).

Discussion

The current results are very specifically related and analyzed within the organization in scope. This is also a specific business sector (IT and TelCo) and there are not so many researches in it.

The results clearly show a shift towards the control perspective and internal orientation. It presents a result-oriented organization in which the greatest care focuses on completing the work. The people are competitive and goal-focused. The leaders are drivers, producers and competitors at the same time. They are tough and demanding. The binding agent that keeps the organization together is the emphasis on winning. Reputation and success are important areas of focus. For the long term people focus on competitive activities and achieving measurable targets and goals. Success is defined in the context of market share and market penetration. Competitive pricing and market leadership are important. The organizational style is one of ultimate competition.

All that is in line with the main job profile in the organization – the one of the financial analysts. Reporting different financial numbers to high managerial levels, planning budgets, cost allocations, etc. are one of the main KPIs (key performance indicators) and it is crucial to be delivered on time and in a very business oriented manner. That is why getting the work done, striving for the best results is top priority.

What is typical for the hierarchy culture (ranked 2nd) is a highly formalized, structured working environment. Procedures determine what the people do. The leaders are proud of the fact that they are good, efficiency-oriented coordinators

and organizers. Maintaining a smoothly running organization is the most crucial thing. Formal rules and policy documents hold the organization together. Concern for the long term focuses on stability and results, accompanied by an efficient and smooth execution of tasks. Success is defined in the context of reliable delivery, smooth planning and low costs. Personnel management must ensure certainty about the job and predictability. All this combined is the prerequisite for securing the base to step on and move forward in reaching the leader's market positions.

The initial hypothesis in this research was that the leading culture type will be the clan one. The reason for that assumption was the fact that there is a rich social life in the organization. The Social Committee is very active and constantly comes up with different initiatives. Many new friendships and families were born. However, the results show that the clan culture is put on the 3rd place with $M=14,04$. Despite that, the values are really close and we still have a very friendly working environment where people have a lot in common and which strongly resembles a large family. The leaders, or the heads of the organizations, are viewed as mentors and maybe even as father figures. The organization is held together by loyalty and tradition. There is a high level of engagement. Within the organization the emphasis is on the long-term benefits of human resource development, and great value is attached to personal relationships and morale. Success is defined in the context of openness to the needs of the customer and care for the people. The organization attaches great value to teamwork, participation and consensus.

Adhocracy culture is the least preferred one. Not so popular is creating a dynamic, entrepreneurial and creative working environment. People rarely stick their neck out and take risks. The leaders are not clearly viewed as innovators. The binding agent that keeps the organization together is little related with commitment to experimentation and innovations. The emphasis is on trendsetting but not so often. For the long term the organization's emphasis is on growth and tapping new sources. Success rarely means having new products or services available; being a pioneer in this is considered important. The organization encourages individual initiative and freedom.

Organizational citizenship behavior is the other construct in scope. Out of the obligations that employees have as per the job description they are willing to obey the internal rules and policies as an internal drive and not only because they should do this. This is the leading type of extra-role behavior. Employees are proactive and voluntarily suggest, develop and realize different initiatives that are not always specifically related to the position occupied by them. This includes active participation in the events organized by the Social Committee, giving ideas for different causes and organizing different campaigns. Loyalty is the least evaluated extra-role behavior but still has high values. This shows that employees have positive attitude towards the organization and are eager to recommend it as a "nice place to work". This is reinforced by the fact that the referral program is working really well and a high % of the new hires are recommended by current employees.

Participation as a form of organizational citizenship behavior has the highest correlations with the culture types that vary from $r=0,52$ for clan culture to $r=0,23$ for market culture. This is a positive indicator for the proactiveness of the employees. The development of strong culture perception stimulates the dynamics in organizational life. Clan culture that embraces the idea of the "big family working together" is most strongly correlated with that citizenship behavior form which is very predictable. Market culture, on the other side is much more focused on the results and getting the leader positions in the business. That is why maybe going the extra mile outside of your role is still important but not that much. Combined with the fact that work is not only your job description, the need of freedom and diversity, voluntary engagement in social life activities within the organization can improve the organizational climate and team spirit.

Obedience is another organizational citizenship behavior form that has correlation coefficients varying from $r=0,43$ for hierarchy culture to $r=0,27$ for market culture. Here is very clear the line of interrelations between the type of culture that strictly follows the rules and procedures and the natural need to have a structured process. Obedience should not be perceived as something negative. Even in the most flexible and creative industries people need some security, clear vision and the frame of the "big thing". This is also confirmed by the correlations with the adhocracy culture type ($r=0,42$). Even the friendly environment and positive team spirit goes higher when people stick to the established rules and working well enough processes.

The least presented culture profile in the examined IT and telecommunications company is the adhocracy one. This fact was somehow related with the main job profile – of the financial business analyst and the integration processes undergoing in the organization. Strange or not loyalty has the highest correlation coefficient of $r=0,46$ with the adhocracy culture. It seems that that people perceive their organization as great place to work when it shows an entrepreneurial spirit and it is open to innovations. In this very dynamic sector of IT and telecommunications, sticking up to the technological trends is crucial for the ensuring of excellent working conditions. Combined with the mentoring and knowledge sharing attitude and clear rules and procedures, we can guarantee the positive image of the organization in the society.

The results show that the market culture is the least related to the organizational citizenship behaviors. Maybe the strict focus on the results is a barrier to expand your scope of knowledge and expertise and develop your skills. Being deeply in to details in the business processes doesn't leave enough time for this "side activities" that make you think "outside of the box". These implications are a good basis for thoughts whether the competitive model is so positive and where actually is the line between being a successful businessman and being a happy employee.

Conclusion and limitations of the study

This study is part of whole organizational development program in a leading IT and telecommunications company in Bulgaria. It is more like to be considered as a case study and its results are applicable and valid only within the sample in scope. There is a good participation rate of the employees (61%) but this might still be improved. Further managerial discussions in the organization are yet to happen and next steps to be defined as the company is in an active process of integration. Despite all that some valuable implications might be derived:

- the current organizational culture profile was created – the shift towards control and internal orientation is actually one of the key factors for the successful operation of the company on the Bulgarian market;
- market culture type is the leading one – in the competitive industry in which the organization is operating this is really important so that you will be recognized and perceived as one of the best;
- employees are very open, proactive and socially engaged, showing different forms of organizational citizenship behavior;
- for sure there are many interrelations between the culture types and the forms of citizenship behavior – if that is managed in an adequate way – both business results and effectiveness and employee motivation, satisfaction and performance will stay high.

References

- Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10(2), 99-109.
- Brief, A., & Motowidlo, S. (1986). Prosocial organizational behavior. *The Academy of Management Review*, 11, 710-725.
- Cameron, K. S., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture*. PA: Addison-Wesley.
- Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework (3rd ed.)*. New York: Wiley.
- Ilieva, S. (2006). Organizational citizenship behavior: Definition, measurement and determinants (In Bulgarian). *Psychological Researches*, 1, 5-21.
- Ilieva, S., & Alexandrova, B. (2017). Differences in organizational citizenship behavior in relation to the demographic characteristics of the employees. *International Conference "13th Days of Applied Psychology": "Psychology in and around us". Subconference "Work and Family Relations"*. Nis: Faculty of Philosophy, Nis (In Press).
- Katz, D., & Kahn, R. (1966;1978). *The social psychology of organizations*. New York: Wiley.
- March, J., & Simon, H. (1958). *Organizations*. New York: Wiley.
- Meschi, P. X., & Roger, A. (1994). Cultural context and social effectiveness in international joint ventures. *MIR: Management International Review*, 197-215.
- Organ, D. (1988). *Organizational citizenship behavior: The good soldier syndrome*.

Lexington, MA: Lexington Books.

- Podsakoff, P., MacKenzie, S., Paine, J. B., & Bachrach, D. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513-563.
- Puffer, S. (1987). Prosocial behavior, non-compliant behavior, and work performance among commission salespeople. *Journal of Applied Psychology*, 72, 615-621.
- Quinn, R. E., & Rohrbaugh, J. (1983). A special model of effectiveness criteria: Towards a competing values approach to organizational analysis. *Management Science*, 29, 363-377.
- Smith, A., Organ, D., & Near, J. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653-663.
- Spector, P. E., & Fox, S. (2002). An emotion-centered model of voluntary work behavior: Some parallels between counterproductive work behavior and organizational citizenship behavior. *Human Resource Management Review*, 12, 269-292.
- Van Dyne, L., Graham, J., & Dienesch, R. (1994). Organizational citizenship behavior: Construct redefinition, measurement, and validation. *Academy of Management Journal*, 37(4), 765-802.
- Zhu, Y. (2013). Individual behavior: In-role and extra-role. *International Journal of Business Administration*, 4(1), 23-27.
- Илиева, С. (2006). *Организационна култура: Същност, функции и промяна*. София: Университетско издателство "Св. Климент Охридски".

Biliana (Alexandrova) Lyubomirova
Sofia University "St. Kliment Ohridski",

TIPOVI KULTURE I ODGOVORNO ORGANIZACIONO PONAŠANJE U TELEKOMUNIKACIONOJ KOMPANIJI

Sažetak

Ovaj istraživački rad ispituje tipove organizacione kulture koji formiraju profil kompanije, koja posluje u sektoru IT i telekomunikacija. 237 od 388 zaposlenih ispunilo je upitnike što je oko 61% svih zaposlenih. Većina njih ima finansijski orijentisan profesionalni profil, starosti oko 31 godinu i visoko obrazovani, rade u kompaniji između 1 i 3 godine (oko 50%). Rezultati pokazuju da na osnovu Cameron i Kuinn modela (korišćenjem upitnika sa 16 stavki, koje sadrže petostepenu Likertovu skalu) organizacija ima visok nivo kontrole i unutrašnju orijentaciju. Vodeća tip organizacione kulture je tip tržišne kulture ($M = 14,31$), a sledi je hijerarhijska kultura ($M = 14,24$). Važno je napomenuti da je profil glavnog zaposlenog finansijski orijentisan (poslovni analitičari, računovođe, finansijski kontrolori, itd.). Neki oblici ponašanja građana se takođe ispituju na osnovu Van Dyne modela (34 stavki, Likertova skala sa 5 stepeni). Poslušnost ima najveću srednju vrednost od $M = 3,77$,

a sledi učešće ($M = 3,48$) i lojalnost ($M = 3,25$). Korelacije pokazuju umerene do visoke nivoe veze između sve četiri vrste kulture (klan i autokratija su druga dva tipa) i svih oblika odgovornog organizacionog ponašanja. Rezultati su vredni sa praktičnog stanovišta i čine osnovu stvaranja čitavog i programa organizacionog razvoja i upravljanja promenama unutar organizacije.

Ključne reči: Tipovi organizacione kulture, poslušnost, učešće, lojalnost, odgovorno ponašanje

WORK BURNOUT IN HEALTH SERVICES²

Abstract

People who have been exposed to extreme psycho-social stress at the workplace for a prolonged period of time, can get syndrome of the burnout. Stressful events in life and work disturb the psychic functions of a person bringing him into a state of increased vulnerability and reduced strength. The basic idea of the work was to examine work burnout, some sources of stress and social support at health workers (nurses, doctors and medicals) (N = 180), as well as the connection of individual aspects of stress sources at work (requirements and control of work, relationship with managers and colleagues, working atmosphere and roles and changes in the organization). The sample consists of 71% of women average age 40,13 year. The research used the following: Data Questionnaire about the examinee, Scale of the emotional burnout at work/ Work burnout scale, Social support scale and Scale of the source of stress at work. The results show that total work burnout can be predicted with 24% of total variance the model is significant at the level, there by the most significant contribution to the model provides social support ($\beta = -.238$; $p < 0.01$) and working atmosphere ($\beta = .245$; $p < 0.05$). The obtained results are significant basis for undertaking preventive measures.

Introduction

Doctors and other employees from the so-called group of helping professions are designated as part of a population at high risk of mental health issues. Mental health is defined as the ability of an individual to fulfill his or her obligations to self and society while living in mutual harmony with the physical and social environment (Sharma, Atri & Branscum, 2013). The World Health Organization (WHO, 2005) defines mental health as a state of well-being in which every individual realizes his or her own potential, can cope with the

¹ biljana.jaredic@pr.ac.rs

² The work is part of a wider mental health research project within the project III 47023 "Kosovo and Metohija between national identity and European integrations" financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia, in which the doctoral dissertation "Connection of personal, interpersonal and organizational parameters and positive and negative characteristics of the mental health of doctors and psychologists" came into existence (Jaredić, 2016).

normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. The most frequently stated factors that can affect mental health negatively are: extended working hours, intensity of work, exposure to: pain, psycho-physical suffering and death of patients, imbalance between effort and reward, personal and family stresses that are reflected in work and the like. Contact with clients, which is direct and long-lasting, causes stress and burnout in the workplace and a series of negative effects on employees in helping professions (Smith, Jaffe-Gill, Segal & Segal, 2012). Sources of stress at work are numerous and the authors classify them into different groups: personal, interpersonal and organizational (such as: type of work, working hours, fear of losing job, mismatch of work content, introduction of new technologies, poor working conditions, etc.) (Ivancevich & Matteson, 1993). Many research has been done about the sources of stress in the workplace and their impact on mental and physical health. Thus, the results show that about 30% of Europeans experience their work as stressful (Sonnentag & Frese, 2003), that the effects of stress at work are numerous, that stress in the workplace contributes to the burnout syndrome, mental problems, absenteeism, early retirement and depression (Heimdal, Friberg, Stiles, Rosenvinge & Martinussen, 2006; Weinberg & Creed, 2000).

Work burnout occurs in those professions dealing with people (police officers, social workers, teachers, psychologists, doctors) (Maslach, 1982) and related to work with "clients" (Škrinjar and Fulgosi-Masnjak, 1994). Burnout refers to the emotional exhaustion syndrome, depersonalisation, and reduced personal accomplishment that occurs among individuals who worked with other people, and whose work had a purpose, a property (Maslach & Jackson, 1986). Maslach (1982) analyzes burnout through three components: emotional exhaustion (the energy consumed in the work – a person feels fatigue and emotional emptiness), depersonalization (negative, cynical, unchanged attitude) and reduced personal achievement (the development of negative attitudes towards oneself in relation to work). Within the ICD-10, clinical/medical burn-out syndrome in the workplace is labelled as neurasthenia (Schaufeli & Enzman, 1998), while in DSM-IV, burnout is defined as a mental adjustment disorder (Schaufeli & Enzman, 1998). Combination defined in this way is characterized by the development of clinically significant emotional or behavioral symptoms in response to an identifiable psycho-social stressors or stressors in general. The frequency in different areas of medicine varies from 27% in family medicine to 75% in obstetrics and gynecology (Martini, Arfken, Churchill & Balon, 2004). There is a high level of burnout among physicians, with psychological comorbidity ranging from 19% to 47%, compared with a rate of about 18% for general employment (Firth-Cohen, 2006), while the prevalence of Western European countries ranges from about 20% to more than 50% (Deckard, Meterko & Field, 1994). When it comes to the sources of work-related stress among doctors and healthcare workers, the most frequently stated are: insufficient technical assistance, absence of gratitude from patients, long working hours, shift work, years of life, work experience (Al-Omar, 2003), as well as

change of workplace and a role, poor relationship with associates (Al-Omar, 2003). Research in various countries shows that the prevalence of work-related stress among healthcare workers is high (Berland, Natvig & Gundersen, 2008; Bergman, Ahmad & Stewart, 2003; Persaud, 2002).

The degree of development of a society is assessed, *inter alia*, through the social network and social support provided by the society. Social links are an essential resource for the individual and society as a whole, based on emotional cohesion and solidarity, and they carry part of informative support and help with them (Lin, 2001; Pichler & Wallace, 2009). Social support is a multidimensional concept (there are different types and sources of support). Literature usually states the division into: emotional, instrumental and advisory support (Thoits, 1982; Sarafino, 2002). Koen and Hoberman (1983) divide social support into: tangible (instrumental) support, belonging support (largely described as emotional support), self-esteem support (the attitude that an individual has in his/her own personality and his/her abilities to solve specific problems) and appraisal support (advisory support). Social support is an important source of social capital, especially for vulnerable groups (Wall, Aboim, Cunha & Vasconcelos, 2001) and refers to help in problem solving: by provision of information and advice, and by providing emotional support (Mitchell & Trickett, 1980, according to Kaličanin, Stožinić, Romanovič Paleev, Slijepčević, 2001). The results of the study show that family and social relationships are crucial for maintaining quality of life (Olagnero, Meo & Corcoran, 2005) and mental health protection (Brissette, Cohen & Seeman, 2000; Walen & Lachman, 2000; Speer, Jackson & Peterson, 2001; Böhnke, 2008). The social network that an individual possesses is an important aspect of social support (Agneessens, Waeye & Lievens, 2006), which is determined by the network size, structure and characteristics of the individual's social network (Brownell & Shumaker, 1985). In individuals with social support, depression and psychological stress are less present (George, Blazer, Hughes & Fowler 1989; Stansfeld, Fuhrer, Head, Ferrie & Shipley, 1997) and they have less health and social problems (Speer et al., 2001).

There is little knowledge about mental health among doctors, nurses and technicians. Research in our country is most often done on the student population trained for this job. Thus, the results show that the incidence of symptoms of depression in medical students varies in the range of 10 to 60%, and that only 20-30% asks healthcare services for help or uses appropriate therapy (Knežević, Jović, Rančić, Ignjatović-Ristić, 2012); that depression is associated with poor quality of life, reduced work efficiency and increased use of benzodiazepines (Knežević et al., 2012; Ignjatović-Ristić, Hinić, Jović, 2011). Also, the results of the research show different burnout rates, which depends on the organizational context, the area and characteristics of the sample. There are also few studies here that dealt with social support and health outcomes (physical and mental) among health workers. Bearing the above in mind, we tried to examine work burnout among health workers, pointing to different sources of stress, but also to the importance

of social support, all with the aim of improving and protecting mental health in the workplace and drawing attention of the professional and scientific public to the risks healthcare workers (doctors, nurses and technicians) are exposed to.

The basic idea of the work was to examine work burnout, some sources of stress and social support among health workers (nurses, doctors and medicals). The research problem was focused on work burnout among healthcare workers, by pointing to different sources of stress, as well as the importance of social support, and also the possibility of predicting work burnout and possible differences in relation to some sociodemographic variables.

The aim of the research was to examine the connection between work burnout and individual aspects of stress sources at work (requirements and control of work, relationship with managers and colleagues, working atmosphere and roles and changes in the organization) and social support (in general as well as by individual aspects). Tasks of the research were to determine whether there are differences in the expression of work burnout in relation to some sociodemographic variables. We assumed that work burnout among healthcare workers would correlate with different sources of stress at work, social support (in total and by individual aspects), and that there is a possibility of predicting work burnout based on the mentioned variables.

Method

Sample

The sample consisted of healthcare workers: doctors, nurses and technicians employed in health institutions in the Republic of Serbia (N = 180), consists of 71% of women average age 40,13 year, 15.78 length of service, 13.20 years of education.

Instruments

Work Burnout is operationalized through the Work Burnout scale (WB; Christensen, et al., 2005). The scale measures physical and psychological work-related exhaustion. It contains 7 claims on a five-point scale. The original scoring is applied (the answer "almost not at all" scores 0, "slightly" 25, "moderately" 50, "mostly" 75, while the answer "largely" scores 100). The overall score is obtained as the arithmetic mean of the answer to all the claims. The reliability of the scale in this study expressed by the Cronbach Alpha coefficient is .92.

Sources of stress at work are operationalized through the Scale of the source of stress at work (Popov & Popov, 2013) with 42 items (answers are given on Likert's five-point scale). The scale contains seven subscales that evaluate the various sources of stress in the organization, such as: job requirements (work overload, task patterns and the work environment), control (how much an individual is able to control the speed of work, number of tasks and predictability of outcomes), managers support (the quality of relationships with the immediate

supervisor, that is, encouragement, sponsorship and resources), colleague support (encouragement, support or praise that the employee receives from his/her colleagues), interpersonal relationships and working atmosphere (quality of interpersonal relationships in terms of communication and cooperation) work role (the degree of role clarity, conflicting duties and role ambiguity), change management (how changes at work occur and how they are managed and communicated) (Popov & Popov 2013). The reliability of individual subcategories is satisfactory and amounts to: job requirements .71; control .70; manager support .89; colleague support .87; interpersonal relationships and working atmosphere .78; work role .77; change management.70.

Social support has been operationalized through ISEL questionnaires³ (a shorter version⁴, Cohen, et al., 1985), which contains 12 items, the answers are listed on a four-point scale and it measures the perception of social support. For the purposes of this research, we used a Serbian translation of the scale. The scale has three subscales that measure three dimensions (four items each) of perceived social support: appraisal support (informative support), belonging support (emotional support) and tangible support (concrete) support (Cohen, et al, 1985). Reliability of the scale in this study expressed by the Kronbach alpha coefficient is .74. The data were processed by correlation and regression analysis and t-test. The survey was conducted in May of 2018, in the workplace of respondents (in healthcare institutions).

Procedure

The research includes the following variables: work burnout, sources of stress at work, social support and sociodemographic variables (sex, marital status, length of service and years of education of healthcare workers). The survey was conducted in April and May of 2018. Respondents gave written consent to participate in the research. The questionnaire was filled in at the workplace. The procedure lasted about 30 minutes.

Results

The following tables show the results of the correlational analysis (Table 1 and 2), regression analysis (Table 3) and t-test (Table 4).

	Job requirements	Control	Working atmosphere	Working roles	Changes in the organization	Relations with managers	Relations with colleagues
Workburnout	.385**	.173**	.386**	.297**	.326**	-.313**	-.244**

Table 1. Correlations between work burnout and source of stress at work
 ***p* < .01. **p* < .05.

³ Jaredic, B., & Stanojevic, D. (2015) ISEL-40 & ISEL-12 item version (Serbian) <http://www.psy.cmu.edu/~scohen/scales.html>

⁴ Original ISEL version (INTERPERSONAL SUPPORT EVALUATION LIST)contains 40 items.

The results (Table 1) show that there is a positive correlation of work burnout with: job requirements, control, working atmosphere, working roles and changes in the organization and that there is negative correlation in the domain of relations with managers and colleagues. These results indicate that physical and psychological exhaustion related to work is more pronounced among those healthcare workers who are: overloaded with work, task pattern and working environment; workers who are not able to control the speed of work, the number of tasks and predictability of outcomes; if the quality of interpersonal relations in terms of communication and cooperation is worse; if there are ambiguous roles, conflict of work with work tasks and ambiguity of the role and if changes in the workplace happen quickly and they can not manage and communicate them adequately (Popov & Popov 2013). Physical and psychological exhaustion in relation to work is more pronounced among those healthcare workers who have poorer quality of relationships with managers (with less encouragement, sponsorships and resources) and colleagues (less inducements, support or appraisal).

Table 2. Correlations between work burnout and social support (total and by individual aspects)

	Total social support	Tangible support	Emotional support	Informative support
Work burnout	-.361**	-.292**	-.364**	-.265**

** $p < .01$. * $p < .05$.

The results (Table 2) show that work burnout is in negative correlation with total social support and with its individual aspects: tangible, emotional and informative support. These results show that work burnout, i.e. physical and psychological exhaustion in relation to work are more prominent among healthcare workers lacking appraisal support (informative support), belonging support (emotional support) and tangible (concrete) support.

By a further correlation analysis only statistically significant positive correlation of work burnout with length of service ($r = .201$; $p < 0.05$) was determined, which means that the healthcare workers who are doing their job for a longer period of time have more prominent work burnout. Years of education of healthcare workers do not correlate with work burnout, which means that years of life are not associated with physical and psychological exhaustion related to the work among healthcare workers in this research.

Table 3. *Regression analysis- work burnout*

Predictors	Work burnout		
	R ²	F	β
Sources of stress at work	.24	5.482***	
1. Job requirements			.145
2. Control			.067
3. Relations with managers			-.104
4. Relations with colleagues			-.133
5. Working atmosphere			.245*
6. Working roles			.041
7. Changes in the organization			.093
8. Total social support			-.238**

***p* < .01. **p* < .05.

The results (Table 3) show that total work burnout can be predicted with 24% of total variance the model is significant at the level, there by the most significant contribution to the model provides working atmosphere and total social support. The obtained result points to the importance of social support and working atmosphere in predicting work burnout among healthcare workers. Total work burnout can be predicted with 24% of total variance, and the most significant contribution to the model provide social support and working atmosphere. Working atmosphere is a significant and positive predictor at the level of 0.05, and total social support is a significant and negative predictor at the level of 0.01. The worse the working atmosphere is, and the burnout is bigger, and the greater the social support, the less burnout is.

Table 4 Results of t- test for Work burnout in relation to marital status

	M		SD		t	df	p
	married	Not married	married	Not married			
Workburnout	18,83	16,31	5,72	4,19	2,62	154	,012

The results (Table 4) show that there are statistically significant differences in Work burnout with respect to marital status, so that those respondents who are married have more pronounced work burnout. Sex differences are not statistically significant.

Discussion

The results obtained in this study have highlighted certain sources of stress at work among healthcare workers that contribute to Work burnout. Bearing in mind that sources of stress at work can be personal, interpersonal and organizational (Ivancevich & Matteson, 1993), all three groups of sources of stress at work have

been identified in this study: job requirements, control, work atmosphere, work roles and changes in the organization (positive correlation), and negative in the domain of relations with managers and colleagues.

In some earlier studies, high control of the job was directly related to all Work burnout outcomes, as well as work overload, contributing to more work exhaustion (Ben-Zur & Michael, 2007). In one research, nine studies of Work burnout among healthcare workers were analyzed, and it was concluded that work burnout ranged from 18 to 82%. The predictors in these studies were individual and professional, and the results and effects were inconsistent with the impact on workburnout, 4 to 16 risk factors in the workplace showed a strong relationship with work burnout, while 11 individual risk factors were weakly or moderately related (Prins, Gazendam-Donofrio, Tubben, Van Der Heijden, Van De Wiel & Hoekstra-Weebers 2007). Prins and Collaborators (2007) show that Work burnout research among healthcare workers in the world is numerous, but the poor quality of research, the variety of variables and the limited power of the same show the need for a more systematic organization of future research, taking into account the individual, professional and educational demands of healthcare workers. The results show that Work burnout may adversely affect quality of patient care and negatively affect physician health, and additional research is needed to identify personal, organizational and societal interventions to address the Work burnout problem (Shanafelt, Boone, Tan, Dyrbye, Sotile, Satele, West, Sloan & Oreskovich, 2012). The consequences of Workburnout on mental health are numerous and are commonly mentioned: divorce, alcohol abuse and suicidal ideation (Oreskovich, Kaups, Balch, Hanks, Satele, Sloan, Meredith, Buhl, Dyrbye & Shanafelt, 2012; Warde, Moonesinghe, Allen & Gelberg, 1999; Shanafelt, Balch, Dyrbye, Bechamps, Russell, Satele, Rummans, Swartz, Novotny, Sloan & Oreskovich, 2011).

Workburnout is negatively related to overall social support and its individual aspects: tangible, emotional and informative. The negative correlation of social support with Workburnout was also obtained in a previous study on a sample of healthcare workers (Jaredić, 2016). Workburnout is positively correlated to stress, and negatively correlated with social support in both life and work (Etzion, 1984), as well as in our research. Etzion (1984) also discovered different patterns of moderating effects of social support on the relationship between stress and workburnout for males and females, and concluded that the relationship between stress at work and workburnout was moderated by social support in life for females and by support in work for males. These results can point to different aspects of gender support and the importance of exploring gender and cultural differences when it comes to Workburnout.

A statistically significant positive correlation of work burnout with length of service indicates that with longer duration of service, dissatisfaction with work among healthcare professionals is increasing. An overview of previous research results in the impression that there are opposite results. There are studies in which age is positively correlated with job satisfaction, while some other studies show

that length of service and overall job satisfaction are not significantly related (Grady 1985, Cano & Miller 1992). Caplan (Caplan, 1994) found out in his study that length of service is associated with depression, anxiety and chronic illness among physicians, and that older doctors are exposed to a significant amount of stress that causes depression and anxiety, which may be the result of long-term burnout, as well as we did in our research.

The statistically significant differences in work burnout with regard to marital status indicate that those who are married burn out more than those who are not married. As the sample consists of mostly females, with the average age of 40.13, these results are expected. The relationship between family life and career prosperity and their relation to life satisfaction has so far been mostly done on a sample of women and it has been found that family life affects the increase in stress among working women and is associated with dissatisfaction with one's own profession and reduced achievement at work (Farmer, 1984). Josephson & Vingard (2005) obtained data indicating that among medical residents, work and family conflicts are more frequent among younger respondents. Such results are in line with the theoretical proposition that satisfaction in one domain of life tends to flow into other aspects of life and that in some instances family life interferes with business life (Zedeck, 1987).

Total Work burnout can be predicted with 24% of total variance, with the most significant contribution to the model providing social support and work environment. What makes doctors and psychologists happy in life and at work are good relationships with colleagues, working atmosphere, as well as good social support in general. And in some early research it was found that the best predictor of Work burnout is dissatisfaction with emotional support (Prins, Hoekstra-Weebers, Gazendam-Donofrio, Van De Wiel, Sprangers, Jaspers & Van Der Heijden, 2007), and that the main determinants of Workburnout are low job improvement, work pressure and lack of supervisor support. These predictors, together with demographic variables and work-related variables, explain 53% of variance in emotional exhaustion as the central component of Work burnout (Constable & Russell, 1986).

Conclusion

This paper has tried to draw attention to the vulnerability of mental health among healthcare professionals, and to the importance of examining some of the resources that can help to combat various sources of stress at work. If an individual has been exposed to extraordinary psycho-social stressors in the workplace for a longer period of time, the work burnout syndrome occurs, which disturbs psychic functions by bringing it into a state of increased vulnerability and reduced work abilities and capacities. We are of the opinion that the research on the sample of respondents from the so-called unhelping professions and comparison with the

results obtained in this research could provide important guidelines for undertaking preventive measures, as well as intervention measures aimed at protecting and improving the mental health of healthcare workers. Exposure to many sources of stress at work, with inadequate or insufficient social support, and associated personal and family sources of stress, threatens the mental health of healthcare workers. The results of this research, in addition to providing useful guidelines for the organization of a number of preventive programs, point to the necessity of continuing the examination of this problem, particularly bearing in mind that sources of stress at work tend to complicate and multiply their effect (Jaređić, 2016).

Reference

- Al-Omar, B.A. (2003). Sources of Work-Stress among Hospital-Staff at the Saudi MOH, *JKAU: Econ. & Adm., Vol. 17, No. 1*, pp. 3-16 (1424 A.H./2003 A.D.).
- Agneessens, F., Waeye, H., Lievens, J. (2006.), Diversity in Social Support by Role Relations: A Typology. *Social Networks*, 28 (4): 427-441.
- Ben-Zur, H., Michael, K. (2007). Burnout, social support, and coping at work among social workers, psychologists, and nurses: the role of challenge/control appraisals. *Soc Work Health Care*; 45(4):63-82.
- Berland, A., Natvig, G.K., Gundersen, D. (2008). Patient safety and job-related stress: a focus group study. *Intensive Crit Care Nurs*; 24:90-7.
- Bergman, B., Ahmad, F., Stewart, DE (2003). Physician health, stress and gender at a university hospital. *J Psychosom Res*; 54:171-8.
- Brissette, I., Cohen, S., Seeman, T. E. (2000), Measuring Social Integration and Social Networks. U: S. Cohen, L. Underwood & B. Gottlieb (ur.), *Support Measurements and Interventions: A Guide for Social and Health Scientists* (p. 53-85), New York, Oxford Press.
- Brownell, A., Shumaker, S. A. (1985.), Where Do We Go from Here? The Policy Implications of Social Support. *Journal of Social Issues*, 41 (1): 111-121. Doi:10.1111/j.1540-4560.1985.tb01119.x
- Böhnke, P. (2008). Are the Poor Socially Integrated? The Link between Poverty and Social Support in Different Welfare Regimes. *Journal of European Social Policy*, 18 (2): 133-150.
- Cano, J., & Miller, G. (1992). A gender analysis of job satisfaction, job satisfier factors, and job dissatisfier factors of agricultural education teachers. *Journal of Agricultural Education*, 33(3), 40-46.
- Cohen, S., Memelstein, R., Kamarck, T., Hoberman, H. (1985). Measuring the functional components of social support. In I.G. Sarason & B. Sarason (Eds.), *Social support: Theory, research and application* (pp.73-94). The Hague: Martinus Nijhoff.
- Cohen, S., Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology*, 13, 99-125.
- Constable, C. J. F., Russell, D. W. (1986). The Effect of Social Support and the Work Environment upon Burnout among Nurses, *Journal of Human Stress*, 12:1, 20-26.

- Chistensen, T. S., Borritz, M., Villadsen, E., Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, 19, 192-207.
- George, L. K., Blazer, D. G., Hughes, D. C., Fowler, N. (1989) Social support and the outcome of major depression. *Journal Article Research Support, U.S. Gov't, P.H.S.*
- Grady, T. L. (1985). Job satisfaction of vocational agriculture teachers in Louisiana. *The Journal of the American Association of Teacher Educators in Agriculture*, 26 (3), 70-78, 85.
- Deckard, G., Meterko, M., Field, D. (1994). Physician burnout: an examination of personal, professional and organizational relationships. *Medical Care*. 32: 745-754.
- Glass, T.A., Maddox, G.L. (1992). The quality and quantity of social support: Stroke recovery as psycho-social transition. *Social Science * Medicine*, 34, 1249-1261.
- Hejmdal, O., Friborg, O., Stiles, T.C., Rosenvinge, J.H., Martinussen, M. (2006). Resilience predicting psychiatric symptoms: A prospective study of protective factors and their role in adjustment to stressful life events. *Child Psychology and Psychotherapy*, 13, 194-201.
- Farmer, H. (1984). Development of a measure of home-career conflict related to career motivation in college women. *Sex Roles*, 10, 663-676.
- Etzion, D. (1984). Moderating effect of social support on the stress-burnout relationship. *Journal of Applied Psychology*, 69(4), 615-622.
- Ignjatović-Ristić, D., Hinić, D., Jović, J. (2011). Evaluation of the Beck Depression Inventory in a Nonclinical Student Sample, *West Indian Medical Journal*, 61 (5): 489-49.
- Ivancevich, J.M., Matteson, M.T. (1993). *Organizational behavior*, Irwin (Homewood, IL)
- Каличанин, П., Стожинић, С., Романович Палеев, Н. И Слијепчевић, Д. (2001). *Стрес, здравље, болест*, И.П. „Обележја“, „Медицина“, Београд.
- Кнежевић, М., Јовић, Ј., Ранчић, Н., Игњатовић-Ристић, Д. (2012). Депресивност код студената медицине. *Мед. Час.* 46(1): 41-46.
- Lin, N. (2001). *Social Capital: A Theory of Social Structure and Action*, Cambridge, Cambridge University Press.
- Jaređić, B. (2016). Povezanost personalnih, interpersonalnih i organizacionih parametara i pozitivnih i negativnih karakteristika mentalnog zdravlja lekara i psihologa. *Doktorska disertacija*. Univerzitet u Kragujevcu. Medicinski fakultet.
- Josephson, M., & Vingard, E. (2005) Remaining in nursing work with a sustainable health. *International Congress Series, Vol. 1280, pp. 89-94.***
- Martini, S., Arfken, CL., Churchill, A., Balon, R. (2004). Burnout comparison among residents in different medical specialties. *Academic Psychiatry*; 28: 240-242.
- Maslach, C. (1982). Understanding burnout: Definitional issues in analyzing a complex phenomenon. In: Paine WS, editor. *Job stress and burnout*. Beverly Hills, CA: Sage, pp 29-40.
- Maslach, C., Jackson, S.E. (1986). *The Maslach Burnout Inventory. Manual (2nd ed.)*. Palo Alto, C.A.: Consulting Psychologists Press.
- Oreskovich, MR., Kaups, KL., Balch, CM., Hanks, JB., Satele, D., Sloan, J., Meredith, C., Buhl, A., Dyrbye, LN., Shanafelt, TD. (2012). Prevalence of alcohol use disorders among American surgeons. *Arch Surg.*;147(2):168-17422351913ArticlePubMedGoogle ScholarCrossref.

- Persaud, R. (2002) Reducing the stress in medicine. *Postgrad Med J*;78:1-3.
- Pichler, F.,Wallace, C. (2009). Social Capital and Social Class in Europe: The Role of Social Networks in Social Stratification. *European Sociological Review*, 25 (3): 319-332.
- Popov, B.,Popov, S. (2013). Adverse working conditions, job insecurity and occupational stress: The role of (ir)rational beliefs. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*.31 (1), 27–38.
- Prins, J.T., Hoekstra-Weebers. J.E., Gazendam-Donofrio, S.M., Van De Wiel, H.B., Sprangers, F, Jaspers, F.C., Van Der Heijden, F.M. (2007). The role of social support in burnout among Dutch medical residents. *Psychol Health Med*, 12, pp. 1-6.
- Prins, J.T., Gazendam-Donofrio, S.M., Tubben, B. J., Van Der Heijden, F. M ., Van De Wiel, H. B., Hoekstra-Weebers, J.E. (2007). Burnout in medical residents: a review. *Medical education*<https://doi.org/10.1111/j.1365-2923.2007.02797.x>
- Sarafino, E. P. (2002). *Health Psychology: Biopsychosocial Interactions*, New York, John Wiley & Sons.
- Seeman, T. E., Syme, L. (1987). Social networks and coronary artery disease: A comparison of the structure and function of social relations as predictors of disease. *Psychosom. Med.* 49: 341–354.
- Smith, M., Jaffe-Gill, E., Segal, J., Segal, R. (2012). Preventing Burnout: Signs, symptoms, causes, and coping strategies. *J Soc Sci.*; 32(3): 295-309.
- Sonnentag, S., Frese, M. (2003). Stress in organizations. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Comprehensive handbook of psychology*, Volume 12: Industrial and organizational psychology (pp. 453-491). New York: Wiley
- Speer, P. W., Jackson, C. B., Peterson, N. A. (2001). The Relationship between Social Cohesion and Empowerment: Support and New Implications for Theory. *Health Education & Behavior*, 28 (6): 716-732.
- Shanafelt, T.D., Boone, S., Tan, L., Dyrbye, L. N., Sotile, W., Satele, D., West, C. P., Sloan, J. Oreskovich, M. R. (2012). Burnout and Satisfaction With Work-Life Balance Among US Physicians Relative to the General US Population *Arch Intern Med.*;172(18):1377-1385. Doi:10.1001/archinternmed.2012.3199
- Shanafelt, TD, Balch, CM, Dyrbye, LN, ,Bechamps, G., Russell, T., Satele, D., Rummans, T., Swartz, K., Novotny, PJ, Sloan, J., Oreskovich, MR. (2011). Special report: suicidal ideation among American surgeons. *Arch Surg.*;146(1):54-6221242446ArticlePubMedGoogle ScholarCrossref.
- Stansfeld, S. A., Fuhrer, R., Head, J, Ferrie, J., Shipley, M. (1997). *Work and psychiatric disorder in the Whitehall II study. Journal of Psychosomatic Research*, 43, 73-81. CrossRef.**
- Sharma, M., Atri, A., Branscum, P. (2013). *Foundations of Mental Health Promotion*. Burlington: Jones & Bartlett Learning.
- Schaufeli, W.B., Enzmann, D. (1998). *The Burnout Companion to Study and Practice: A Critical Analysis*. London: Taylor and Francis.
- Škrinjar, J., Fulgosi-Masnjak, R. (1994). Mjerne značajke skala procjena za ispitivanje profesionalne opterećenosti (Burnout). *Defektologija*, Vol. 30. 2, 127-137.
- Thoits, P. A. (1982.), Conceptual, Methodological, and Theoretical Problems in Studying Social Support as a Buffer Against Life Stress. *Journal of Health and Social Behavior*, 23 (2): 145-159. Doi:10.2307/2136511

- Wall, K., Aboim, S., Cunha, V., Vasconcelos, P. (2001). Families and Informal Support Networks in Portugal: The Reproduction of Inequality. *Journal of European Social Policy*, 11 (3): 213-233.
- Walen, H. R., Lachman, M. E. (2000.), Social Support and Strain from Partner, Family and Friends: Costs and Benefits for Men and Women in Adulthood. *Journal of Social and Personal Relationships*, 17 (1): 5-30.
- Warde, CM., Moonesinghe, K., Allen, W., Gelberg, L. (1999). Marital and parental satisfaction of married physicians with children. *J Gen Intern Med*;14(3):157-16510203621
- World Health Organization (WHO) (2005). Promoting Mental Health: Concepts - Emerging evidence - Practice. A Report of the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and The University of Melbourne.
- Zedeck, S. (1987) *Work, Family and Organizations: An Untapped Research Triangle*. Institute of Industrial Relations. Institute of Industrial Relations Working Paper Series. Paper iirwps-010-87.

Biljana Jaredić

Jelena Davidović – Rakić

Jelena Minić

Univerzitet u Prištini, Filozofski fakultet u Kosovskoj Mitrovici

IZGARANJE NA POSLU U ZDRAVSTVENIM USTANOVAMA

Sažetak

Ljudi koji su izloženi ekstremnom psiho-socijalnom stresu na radnom mestu duže vreme, mogu da dobiju sindrom izgaranja. Stresni događaji u životu i na radu narušavaju psihičke funkcije osobe dovodeći je u stanje povećane ranjivosti i smanjene snage. Osnovna ideja rada bila je ispitivanje izgaranja na radu, nekih izvora stresa i socijalne podrške kod zdravstvenih radnika (medicinskih sestara, lekara i medicinskih radnika) (N = 180), kao i povezivanje pojedinih aspekata izvora stresa na radu (zahtevi i kontrola rada, odnos sa rukovodiocima i kolegama, radna atmosfera i uloge i promene u organizaciji). Uzorak čini 71% žena prosečne starosti 40,13 godina. Istraživanje je koristilo sledeće: Upitnik podataka o ispitanicima, Skala emocionalnog izgaranja na poslu / Skala izgaranja na poslu, Skala socijalne podrške i Skala izvora stresa na poslu. Rezultati pokazuju da se ukupno izgaranje na poslu može predvidjeti sa 24% ukupne varijanse, a model je značajan na nivou, pri čemu najznačajniji doprinos modelu pruža socijalna podrška ($b = -.238$, $p < 0.01$) i radna atmosfera ($b = .245$, $p < 0,05$). Dobijeni rezultati značajna su osnova za preduzimanje preventivnih mera.

PERSONAL AND SITUATIONAL CORRELATES OF PRODUCTION WORKERS BURNOUT

Abstract

This study tried to investigate the role of personal and situational factors in explaining the production workers burnout. Specifically, the aim of this study was to examine how much production workers burnout can be explained by personality traits and job characteristics. The research included 230 employees (49.1% female), aged 19 to 59 ($M=35.71$, $SD=8.50$), whose job tenure ranged from 1 to 38 years ($M = 10.07$, $SD = 7.76$). We used the Personal Burnout Scale, Work-related Burnout Scale, Big Five Questionnaire, Job Insecurity Scale, and Workplace Characteristics Checklist (quantitative work overload, monotony and imposed rhythm of work). The results of hierarchical regression analyses showed that job characteristics explained the biggest percentage of the variance of the production workers personal and work-related burnout. All used measures of job characteristics proved to be significant positive predictors of personal and work-related burnout. When it comes to personal traits, only neuroticism proved to be a significant positive predictor of personal and work-related burnout. As for demographic variables, the only gender proved to be a significant partial predictor of personal burnout. In conclusion, the obtained results showed that the job characteristics have greater predictive power in explaining the personal burnout and work-related burnout than personal factors.

Key words: burnout, personality traits, job characteristics, demographic characteristics, production workers

Introduction

As a psychological term, burnout was recognized in the professional literature of the 1970s, when Herbert Freudenberg defined it as a gradual loss of motivation and emotional „exhaustion“ due to the specific requirements of work, personality traits, and expectations, as well as unsatisfactory results of the invested efforts, observed with the medical staff who dealt with addicts (Schaufeli & Buunk, 2003). Seven years later Maslach and Jackson (1981) expanded the term burnout indicating that this syndrome includes: Emotional exhaustion, Depersonalization, and Reduced personal accomplishment, especially characteristic for the humanistic and helping professions.

Emotional exhaustion refers to the feeling of being “drained” and the lack of energy for a new day and the lack of enthusiasm (Maslach & Jackson, 1981;

¹ Corresponding author: biljana.mirkovic@ff.unibl.org, Postal address: Filozofski fakultet, Univerzitetski grad, Bulevar vojvode Petra Bojovića 1A, 78 000 Banja Luka

Maslach, Schaufeli, & Leiter, 2001). Depersonalization refers to the feeling of detachment from the workplace and the people from the workplace, distancing and cynicism (Maslach & Jackson, 1981; Maslach et al., 2001). Reduced personal achievement refers to feelings of decline in one's ability and productivity as well as a lower sense of self-efficacy (Maslach & Jackson, 1981; Maslach et al., 2001). Simultaneously, Maslach also publishes a questionnaire called the Maslach Burnout Inventory (MBI) to examine the burnout syndrome. However, its items are limited to people-oriented occupations, and there are limitations in terms of burnout definition and measurement—two dimensions measured by this instrument (e.g., depersonalization and personal accomplishment) are not related to burnout syndrome (Beckstead, 2002; Galanakis, Moraitou, Garivaldis, & Stalikas, 2009; Gil-Monte, 2005; Poghosyan, Aiken, & Sloane, 2009; Vanheule, Rosseel, & Vlerick, 2007). Therefore, critics advocated the development of alternative burnout measures (Cox, Tisserand, & Taris, 2005; Halbesleben & Demerouti 2005). The Copenhagen Burnout Inventory (CBI) has recently been developed. The CBI was developed as part of the PUMA study investigating burnout among human service workers in Copenhagen (Kristensen, Borritz, Villadsen, & Christensen, 2005). The CBI consists of three parts which evaluate: personal burnout, work-related burnout and client-related burnout (Kristensen et al., 2005). The personal burnout dimension is defined as “the degree of physical and psychological fatigue and exhaustion that is experienced by the person” (Kristensen et al., 2005, p. 197). Client-related burnout is “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients” (Kristensen et al., 2005, p. 197). Work-related burnout is defined as “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work” (Kristensen et al., 2005, p. 197). In the CBI the core of burnout is fatigue and exhaustion. The studies that followed showed that the occurrence of burnout syndrome is not a “privilege” of certain professions, but that it can affect workers of any profession, both employed in helping professions and workers in production activities (Salanova & Llorens, 2008).

Burnout syndrome has been related to various psychological and physical disorders. The most common are cognitive dysfunctions, chronic fatigue, and sleeping disorders. People suffering from burnout syndrome are prone to depression, alcohol and psychoactive substances abuse, even suicides (Lindblom, Linton, Fedeli, & Bryngelsson, 2006; Michielsen, Willemsen, Croon, De Vries, & Van Heck, 2004). Concerning somatic symptoms there are a headache, gastrointestinal tract disorders and cardiovascular diseases (Ahola, Honkonen, Virtanen, Kivimäki, Isometsä, & Aromaa, 2000; Arogundade & Onabanjo, 2013; Appels & Schouten, 1991). The most obvious consequence of the work-related burnout is reduced productivity and the quality of work done. Also, burnout is associated with absenteeism, desire to leave the job and reduced general well-being (Polikandrioti, 2009).

Etiopathogenesis of the burnout syndrome is complex, but it is generally considered that prolonged “negative stress” plays a key role in its emergence,

whereby individual characteristics and the inability to successfully solve things are also very important (Salanova & Llorens, 2008; Weber & Jaekel-Reinhard, 2000). Factors influencing the emergence of burnout can be divided into situational and individual factors. Situational factors include workplace characteristics, meaning the workload level, monotony, poor interpersonal relationships and the lack of support from colleagues. Individual factors include demographic characteristics, personality traits, and attitudes towards work (Dedić, 2005).

Many researchers (Lee & Ashforth, 1996; Maslach & Schaufeli, 1993; Miller & Ellis, 1990) emphasize that situational factors; the nature of the work and circumstances under which the work is done, represent the main triggers for the burnout development. The most commonly cited antecedent to burnout is work overload. Classified as either quantitative or qualitative, work overload is the result of having too many things to do in a given time period (Bacharach, Bamberger, & Conley, 1991). Quantitative overload is the perception of too much work to complete in the given time-frame, and qualitative overload occurs when the job requirements exceed skill level (Sanders, Fulks & Knoblett, 1995). Work overload is a major source of emotional exhaustion that, in turn, is at the root of burnout (Beehr & Nevman, 1978; Fong & Kleiner, 2004; Janssen, Schaufeli, & Houkes, 1999; Leiter & Maslach, 2005; Miller & Ellis, 1990), representing the basic individual stress component of burnout (Maslach, 2006). Monotonous and repetitive tasks, and imposed rhythm of work, also result in chronic fatigue, exhaustion, and burnout (Farber, 1991; Montero, García-Campayo, & Validez, 2009; Vilela & Assuncao, 2004). The burnout is a phenomenon that is particularly present in humanistic professions oriented towards various types of helping people for which interpersonal relations have crucial importance (Maslach et al., 2001). Joint stressors are conflicting expectations and demands by different interest groups, which enhances the experience of psychological pressure (Friedman, 2003; Maslach & Jackson, 1984). Finally, classified as either quantitative or qualitative, job insecurity is an important factor of burnout. Quantitative job insecurity refers to concern for the future existence of the present job, whereas qualitative job insecurity refers to perceived threats of impaired quality in the employment relationship (Hellgren, Sverke & Isaksson, 1999). The prolonged chronic exposure to job insecurity leads to burnout (Dekker & Schaufeli, 1995; Hu & Schaufel, 2011; Westman, Etzion, & Danon, 2001).

In the etiology of burnout, the personality traits of the employee have an important role (Colbert, Mount, Harter, Witt, & Barrick, 2004; Ghorpade, Lackritz, & Singh, 2007; Hobfoll & Freedy, 1993; Maslach et al., 2001; Zellars, Perrewe, & Hochwärter, 2000). In the context of the „Big Five“ model, studies indicate that Neuroticism and Extraversion are the most significant personality factors in explaining the burnout dimensions. Neuroticism is positively correlated (Buhler & Land, 2003; Hills & Norvell, 1991; Langelaan, Bakke, Lorenz, & Van Doornen, 2006), while Extraversion is negatively correlated with burnout (Bakker, Van Der Zee, Lewig, & Dollard, 2006; Lakin, Leon, & Miller, 2007; Langelaan et al., 2006).

Neuroticism can thus be understood as a risk factor for the development of burnout syndrome, while Extraversion can be explained as a protective personality factor (Eastburg, Williamson, Gorsuch, & Ridley, 1994; Michielsen et al., 2004; Piedmont, 1993; Van Heck, 1997; Zellars et al., 2000). A negative correlation has also been determined between the self-esteem degree and burnout, as well as the fact that persons with an external locus of control have a higher degree of burnout (Ioannou & Kyriakides, 2006).

Socio-demographic characteristics, which proved to be the most significant predictors of burnout in the medical profession, show that employees younger than 35, single and without children, and with less work experience, are exposed to the higher risk (Demirci, Yildirim, Ozsaran, Uslu, Yalman, & Aras, 2010). Studies conducted in Finland and Sweden, in non-productive sectors, indicate that burnout was more pronounced in women older than 50 (Lindblom, Linton, Fedeli, & Bryngelsson, 2006). Also, women of lower educational and professional status showed the tendency to higher burnout scores (Kalimo, Pahkin, Mutanen, & Toppinen-Tanner, 2003).

Burnout syndrome, from its operationalization until today, has been the subject of many studies. Reasons include significant financial and social effects which are the result of its consequences on the physical and mental health of employees (Schaufeli, Leiter & Maslach, 2009). Maslach (2003) argues that "burnout is more a function of the situation than of the person" (p. 191), emphasizing the precedence of factors such as demands-resources imbalance in the job over personality and individual differences. However, it remains largely unsubstantiated the claim that work-contextualized factors account for more burnout variance than general disposition factors. Namely, meta-analytic reviews of research (Aronsson et al., 2017; Swider & Zimmerman, 2010) which were carried out mainly in helping professions, shows that general dispositional factors (e.g., neuroticism and extraversion) account for more variance in burnout than work-contextualized factors. In order to better understand and deal with the burnout phenomenon, it is important to clarify how situational factors and dispositional factors are associated with burnout. In our country, a number of studies dealing with burnout of employees are still rather low, and the prevention program is almost non-existing in practice. As far as we know, the production workers burnout has never been subject to any study in our country until now. Therefore, this study tried to investigate the relationship between personal and situational factors and production workers burnout. Specifically, the aim of this study was to examine how much production workers burnout can be explained by personality traits and job characteristics. In doing so, basic demographic characteristics, such as gender, age, and length of employment, are controlled. Having in mind the fact that the job of production workers is characterized by work overload and monotony (Katz & Kahn, 1978; Paoli, & Merllié, 2001), and the findings of the above mentioned studies (e.g., Lee & Ashforth, 1996; Maslach & Schaufeli, 1993; Miller & Ellis, 1990), we are expecting that the job characteristics will have a bigger impact on production workers burnout than the personal factors.

Method

Participants and procedure

The sample is composed of 230 respondents (49.1% female) from Banja Luka. The respondents are employees in medium-sized enterprises in the field of textile industry (52.6%), food industry (18.2%) and wood-processing industry (27.3%). Employees' ages ranged from 19 to 59 ($M = 35.71$, $SD = 8.50$). For the educational background, 2.2% of them completed elementary education, 84.3% had secondary education and 13.5% had a university degree. Job tenure ranged from 1 to 38 years ($M = 10.07$, $SD = 7.76$). Most respondents (79.6%) worked in private organizations.

Data were collected in organizations using a paper-and-pencil format, under the supervision of the researchers. Completing the questionnaire was conducted individually, and it lasted for about 20 minutes. Participation was on a voluntary and anonymous basis. The respondents were familiar with the fact that the collected data will be used for scientific purposes only.

Instruments

The following instruments were used:

Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005). The questionnaire contains 19 items grouped into three subscales measuring: Personal burnout, Work-related burnout, and Client-related burnout. Participants used a 5-point Likert type scale (ranging from 1 = "never" to 5 = "always") to assess how often they felt in the manner given in each item. The subscales of CBI can be used independently, according to the test population (Kristensen et al., 2005). We used the Personal Burnout Scale and Work-related Burnout Scale. The Client-related burnout Scale was not applied because the surveyed workers belonged to the manufacturing sector, not to the service sector. The reliability of the subscales measured by Cronbach's alpha, for this study, was .83 for Personal Burnout Scale and .85 for Work-related Burnout Scale.

Big Five Inventory (BFI; John, Donahue, & Kentle, 1991). The questionnaire contains 44 items distributed in five subscales that measure personality traits: Extraversion, Openness to experience, Conscientiousness, Agreeableness, and Neuroticism. The items are formulated as short phrases based on the adjectives of traits that are the prototypes of the Big Five model. The task of respondents was to evaluate to what extent they agree with each item using a 5-point Likert-type scale (from 1 = "completely disagree" to 5 = "completely agree"). The reliability of the subscales measured by Cronbach's alpha, for this study, was .65 for Extraversion, .63 for Openness to experience, .74 for Conscientiousness, .74 for Agreeableness and .61 for Neuroticism.

Job Insecurity Scale (Popov, 2013). The scale contains 5 items, which measure one construct. The scale measures employees' perceptions of how much their current job is certain. The task of respondents was to evaluate to what extent they agree with each item using a 5-point Likert-type scale (from 1 = "completely

disagree" to 5 = "completely agree"). The reliability of the scale measured by Cronbach's alpha, for this study, was .79.

Workplace Characteristics Checklist. The checklist constructed for this research, consisted of 3 items that measure: quantitative work overload ("I am overloaded with the scope of work at my workplace."), monotony ("My tasks are monotonous and repetitive, without any control or challenge.") and imposed rhythm of work ("In my workplace, the rhythm of work is imposed by a machine."). The task of respondents was to evaluate to what extent they agree with each item using a 5-point Likert-type scale (from 1 = "completely disagree" to 5 = "completely agree").

Demographic Characteristics Checklist. The questionnaire consisted of four questions about the following demographic characteristics: gender, age, level of education and length of employment period.

Data analysis

Data analysis used the following statistical procedures: descriptive statistics, correlation analysis, and hierarchical regression analysis. Data analysis was performed using the statistical software package SPSS for Windows, version 20.0.

Results

Descriptive and correlation analysis

Table 1 presents the descriptive statistical measures for the variables used in the study. Normality of respondents' results distribution has been tested by the Kolmogorov-Smirnov Test.

Table1. Descriptive statistical measures and correlations between variables

	M	SD	Sk	Ku	Correlations	
					Personal burnout	Work-related burnout
Personal burnout	16.37	4.73	.162	-.240	1.00	
Work-related burnout	18.31	5.52	.436	.159	.85**	1.00
Extraversion	24.00	4.41	.124	.260	.47**	.39**
Agreeableness	34.35	5.92	-.069	-1.00	-.24**	-.19**
Conscientiousness	32.67	5.70	.216	-.457	-.24**	-.21**
Neuroticism	20.85	4.88	-.319	-.309	-.36**	-.28**
Openness to experience	30.74	4.90	.158	.266	.39**	.38**
Job insecurity	12.49	4.70	.265	-.011	-.19**	-.16*
Work overload	2.24	1.34	.712	.320	.46**	.41**
Monotony	3.95	1.06	-.742	-.130	.23**	.21**
Imposed rhythm of work	2.75	1.23	.172	-.923	.51**	.47**

* $p < .05$; ** $p < .001$

Means and standard deviations, skewness, and kurtosis for all of the used variables (Table 1), do not indicate major distribution deviations compared to the normal distribution (Tabachnick & Fidell, 2001).

Observing the correlation between personality traits of the Big Five model and burnout we can see that agreeableness, conscientiousness, and neuroticism are in negative correlation ($p < .001$) with personal burnout and work-related burnout, while the extraversion and openness to experience are in positive correlation ($p < .001$) with personal burnout and work-related burnout. Extraversion is in the strongest correlation with personal burnout ($r = .47, p < .001$) and work-related burnout ($r = .39, p < .001$). Considering the correlations between the job characteristics and burnout, we can see that the quantitative work overload, monotony and imposed rhythm of work are in positive correlation ($p < .001$) with personal burnout and work-related burnout, while the job insecurity is in low negative correlation with personal burnout ($r = -.19, p < .001$) and work-related burnout ($r = -.16, p < .05$).

In order to determine the individual contributions of personality traits and the measures of job characteristics to explaining personal burnout and work-related burnout, two hierarchical regression analyses were performed. In both analyses, the sequence of introducing the predictor variables into the regression equation was the same. In the first step, as a control, we introduced demographic variables (gender, age, and length of employment period). In the second step, we introduced the personality traits of the Big Five model. In the third step, we introduced job characteristics (job insecurity, quantitative work overload, monotony and imposed rhythm of work). The results appear in Table 2.

Table 2. Hierarchical regression analysis of demographic characteristics, personality traits and job characteristics for the personal burnout and work-related burnout

	Personal burnout			Work-related burnout		
	Model			Model		
	1	2	3	1	2	3
	β	β	β	β	β	β
Gender	.276**	.215**	.156*	.166*	.117	.085
Age	.175	.108	.155	.102	.051	.102
Length of employment	-.259*	-.155	-.132	-.148	-.074	-.071
Extraversion		.042	.036		-.012	-.029
Agreeableness		.071	-.002		.048	-.035
Conscientiousness		-.223*	-.030		-.100	.114
Neuroticism		.214*	.187**		.250**	.221**
Openness		-.078	-.012		-.117	-.058
Job insecurity			.275**			.197**
Work overload			.209**			.256**
Monotony			.238**			.245**
Imposed rhythm			.155*			.191**
R ²	.092	.191	.459	.023	.119	.398
F	6.944**	6.161**	13.394**	2.373	4.010**	10.827**
ΔR^2		.120	.269		.120	.280
ΔF		5.185**	21.737**		4.837**	20.736**

Note. Binary variable gender is coded as 0 = male, 1 = female.

* $p < .05$; ** $p < .01$

The obtained results (Table 2) show that demographic characteristics explained 9.2% of the variance of personal burnout, which indicates weak predictive power ($R^2 < .13$; Cohen, 1988) of demographic characteristics for the personal burnout. The personality traits of the Big Five model, included in the second phase, explained an additional 12% of the variance of personal burnout, which indicates weak predictive power of Big Five personality traits for personal burnout. The job characteristics, included in the third phase, explained an additional 26.9% of the variance of personal burnout, which indicates substantial predictive power ($R^2 > .26$; Cohen, 1988) of job characteristics for the personal burnout. The model as a whole explained 45.9% of the total variance of personal burnout, and a significant partial predictors are the gender ($\beta = .156, p < .05$; women are more prone to personal burnout), neuroticism ($\beta = .187, p < .01$), job insecurity ($\beta = .275, p < .01$), quantitative work overload ($\beta = .209, p < .01$), monotony ($\beta = .238, p < .01$) and imposed rhythm of work ($\beta = .155, p < .05$).

When it comes to work-related burnout (Table 2), the demographic characteristics are not a statistically significant predictor of work-related burnout ($p > .05$). The personality traits of the Big Five model, included in the second phase, explained 12% of the variance of work-related burnout, which indicates weak predictive power of Big Five personality traits for the work-related burnout. The job characteristics, included in the third phase, explained an additional 28% of the variance of personal burnout, which indicates substantial predictive power of job characteristics for work-related burnout. The model as a whole explained 39.8% of the total variance of work-related burnout, and a significant partial predictors are neuroticism ($\beta = .211, p < .01$), job insecurity ($\beta = .197, p < .01$), quantitative work overload ($\beta = .256, p < .01$), monotony ($\beta = .245, p < .01$) and imposed rhythm of work ($\beta = .191, p < .01$).

Discussion and conclusion

The aim of the research was to examine the contributions of personality traits and job characteristics in explaining the burnout of employees in production, while basic demographic characteristics were controlled.

As we postulated, job characteristics explained the biggest percentage of the variance of the production workers personal burnout and work-related burnout. This result is consistent with the Maslach's (2003) claim that "burnout is more a function of the situation than of the person" (p. 191); that is, work-contextualized factors account for more burnout variance than disposition factors. All used measures of job characteristics: job insecurity, quantitative work overload, monotony and imposed rhythm of work, proved to be significant positive predictors of personal burnout and work-related burnout of production workers. Job insecurity causes stress and increases the tendency towards anxiety among employees (Burgard, Kalousova & Seefeldt, 2012). Chronic stress connected with

the work can cause burnout (Dekker & Schaufeli, 1995). In previous studies, it was also determined that the burnout level of the employees bearing perception of job insecurity is meaningfully higher than with other employees (De Cuyper, Mäkikangas, Kinnunen, Mauno & Witte, 2012; Schaufeli & Greenglass, 2001; Westman, Etzion, & Danon, 2001). Quantitative work overload is a major source of emotional exhaustion that, in turn, is at the root of burnout (Beehr & Nevman, 1978; Ellis, 1990; Fong & Kleiner, 2004; Janssen, Schaufeli, & Houkes, 1999; Leiter & Maslach, 2005; Maslach, 2006; Miller & Maslach, 2005). Monotonous and repetitive tasks and the rhythm of work imposed, also lead to chronic fatigue and exhaustion (Farber, 1991; Montero, García-Campayo, & Validez, 2009; Vilela & Assuncao, 2004).

When it comes to personal traits of the Big Five model, only neuroticism proved to be a significant positive predictor of personal burnout and work-related burnout. This result is consistent with the view that neuroticism in everyday life acts as a negative filter and increases the impact of adverse events (Semmer, 2006). Neuroticism is the most significant predictor of negative affectivity. Lower estimation of general psychological well-being and life satisfaction, as well as pessimistic cognitive style; represent characteristics of neuroticism (Smederevac & Mitrović, 2006). Although the results of previous studies on samples of employee from helping professions indicate that extraversion represents significant negative predictor of burnout (Buhler & Land, 2003; Hills & Norvell, 1991; Langelaan, Bakke, Lorenz, & Van Doornen, 2006), extraversion has not proved to be a significant predictor in case of production workers.

As for demographic variables, the only gender proved to be a significant partial predictor of personal burnout. Women are more inclined to personal burnout than men. Early research (i.e. Burke & Greenglass 1993; Sari, 2004; Slišković & Burić, 2016), in a sample of the employees in helping professions, also showed that women have a higher level of burnout. Women usually show higher levels of distress (McClean, Strongman, & Neha, 2007; Popov & Popov, 2011). The prevalence of emotional exhaustion is greater in women and in the causal chain; it represents a trigger for the development of further burnout symptoms (Houks, Winauts, Twellaar, & Verdonk, 2011). It is interesting that the age and length of employment, until now frequently emphasized as significant demographic predictors of burnout in helping professions (e.g., Fisher, 2011; Kokkinos, 2007; Zhongying, 2008), have no important individual influence in this study.

Finally, the present study has several limitations. First, the study used convenience sampling which is why the effect of "healthy worker" was possible (Karasek & Theorell, 1990). In fact, the study included workers who performed their tasks at the time the study was being conducted (meaning, relatively healthy workers), and excluded those who were absent due to illness, disability or work burnout. Second, data was collected through the self-assessment of respondents. Interpretation of such results should consider the possibility that respondents were more inclined to "complain" and provide more intensive self-descriptions of their problems. Third, situational factors of burnout also include the characteristics

of the workplace which are related to poor interpersonal relationships and lack of support from colleagues and leaders, while individual factors of burnout also include the work attitudes (Dedić, 2005), which were not included in this research. Therefore, future research should examine their contribution to the burnout of production workers.

However, indicated limitations do not diminish the significance of the obtained results, which refer to the important role of organizational factors in the occurrence of the production workers burnout phenomenon, which has significant practical implications. Namely, in preventing production workers burnout it is important to focus on better distribution of tasks through rotation, job enlargement and job enrichment, in order to reduce work overload, monotony and imposed work rhythm which lead to workers burnout.

References

- Ahola, K., Kivimäki, M., Honkonen, T., Virtanen, M., Koskinen, S., Vahtera, J. & Lönnqvist, J. (2008). Occupational burnout and medically certified sickness absence: A population-based study of Finnish employees. *Journal of Psychosomatic Research*, 64, 185–193. doi:10.1016/j.jpsychores.2007.06.022
- Appels, A. & Schouten, E., 1991, Burnout as a risk factor for coronary heart disease. *Behavioral Medicine*, 17, 53-59.
- Arogundade O. T. & Onabanjo, O. C. (2013). Influence of Personality and Self-Esteem on Teachers' Prone to Burnout Syndrome in Lagos Metropolis. *American Journal of Applied Psychology*, 1, 7–13.
- Aronsson, G., Theorell, T., Grape, T., Hammarström, A., Hogstedt, C., Marteinsdottir, I., Skoog, I., Träskman-Bendz, L., & Hall, C. (2017). A systematic review including metaanalysis of work environment and burnout symptoms. *BMC Public Health* 17(264), 2-13. <https://doi.org/10.1186/s12889-017-4153-7>.
- Bacharach, S. B., Bamberger, P. & Conley, S. (1991). Work-home conflict among nurses and engineers: Mediating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior*, 12, 39–53.
- Bakker, A. B., Van Der Zee, K. I., Lewig, K. A. & Dollard, M. F. (2006). The relationship between the big five personality factors and burnout: A study among volunteer counselors. *Journal of Social Psychology*, 146, 31–50.
- Beckstead, J. W. (2002). Confirmatory factor analysis of the Maslach Burnout Inventory among Florida nurses. *International Journal of Nursing Studies*, 39, 785–792. doi:10.1016/S0020-7489(02)00012-3
- Beehr, T. A. & Newman, J. E. (1978). Job stress, employee health and organisational effectiveness: A facet analysis, model and literature review. *Personnel Psychology*, 31, 665-699.
- Buhler, K., E. & Land, T. (2004). Burnout and personality in extreme nursing: an empirical study. *Schweizer Archiv fur Neurologie und Psychiatrie*, 155, 35–42.

- Burgard, S. A., Kalousova, L., & Seefeldt, K. S. (2012). Perceived job insecurity and health: the Michigan Recession and Recovery Study. *Journal of Occupational and Environmental Medicine, 54*(9), 1101-1106.
- Burke, R. J. & Greenglass, E. (1993). Work stress, role conflict, social support, and psychological burnout among teachers. *Psychological Reports, 73*(2), 371–380. doi:10.2466/pr0.1993.73.2.371
- Cherniss, C. (1993). The role of professional self-efficacy in the etiology and amelioration of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional Burnout: Recent Developments in Theory and Research* (pp. 135- 150). Washington, DC: Taylor & Francis.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd Edition)*. Hillsdale, NJ: Erlbaum.
- Colbert, A. E., Mount, M. K., Harter, J. K., Witt, L. A. & Barrick, M. R. (2004). Interactive effects of personality perceptions of the work on workplace deviance. *Journal of Applied Psychology, 89*, 599–609.
- Cox, T., Tisserand, M. & Taris, T. (2005). Editorial: The conceptualization and measurement of burnout: Questions and directions. *Work & Stress, 19*(3), 187-191. doi:10.1080/02678370500387109
- De Cuyper, N., Mäkikangas, A., Kinnunen, U., Mauno, S., & Witte, H. D. 2012. Cross-lagged associations between perceived external employability, job insecurity, and exhaustion: Testing gain and loss spirals according to the Conservation of Resources Theory. *Journal of Organizational Behavior, 33*(6), 770-788. Dedić, G. (2005). Professional burnout. *Vojnosanitetski Pregled, 62*(11), 851–5.
- Dekker, W. A. & Schaufeli, W. B. (1995). The effects of job insecurity on psychological health and withdrawal: A longitudinal study. *Australian Psychologist, 30*, 57–63. doi:10.1080/00050069508259607
- Demirci, S., Yildirim Y. K., Ozsaran, Z., Uslu, R., Yalman D. & Aras A. B. (2010). Evaluation of burnout syndrome in oncology employees. *Medical Oncology, 27*, 968–974.
- Eastburg, M. C., Williamson, M., Gorsuch, R. & Ridley, C. (1994). Social support, personality and burnout in nurses. *Journal of Applied Social Psychology, 24*, 1233–1250.
- Farber B. A. (1991). *Crisis in education: Stress and burnout in the American teacher*. San Francisco: Jossey-Bass.
- Fisher, M. H. (2011). Factors influencing stress, burnout, and retention of secondary teachers. *Current Issues in Education, 14*(1), 1–37. <http://cie.asu.edu/>
- Fong, K. & Kleiner, B. H. (2004). New development concerning the effect of work overload on employees. *Management Research News, 27*(4/5), 9-17.
- Friedman, I .A. (2003). Self-Efficacy and Burnout in Teaching: The Importance of Interpersonal-Relations Efficacy. *Social Psychology of Education, 6*, 191–215.
- Galanakis, M., Moraitou, M., Garivaldis, F. J. & Stalikas, A. (2009). Factorial structure and psychometric properties of the Maslach Burnout Inventory (MBI) in Greek midwives. *Europe's Journal of Psychology, 5*, 52–70. doi:10.5964/ejop. v5i4.240
- Ghorpade, J., Lackritz, J. & Singh, G. (2007). Burnout and personality: evidence from academia. *Journal of Career Assessment, 15*, 240–256.

- Gil-Monte, P. R. (2005). Factorial validity of the Maslach Burnout Inventory (MBI-HSS) among Spanish professionals. *Revista de Saúde Pública*, 39, 1–8. doi:10.1590/S0034-89102005000100001
- Halbesleben, J. R. B. & Demerouti, E. (2005). The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work & Stress*, 19, 208–220. doi:10.1080/02678370500340728
- Hellgren, J., Sverke, M. & Isaksson, K. (1999). A Two-dimensional Approach to Job Insecurity: Consequences for Employee Attitudes and Well-being. *European Journal of Work and Organizational Psychology*, 8(2), 179-195. doi: 10.1080/135943299398311
- Hills, H. & Norvell, N. (1991). An examination of hardiness and neuroticism as potential moderators of stress outcomes. *Behavioral Medicine*, 17, 31–38.
- Hobfoll, S. E. & Freedy, J. (1993). Conservation of resources: a general stress theory applied to burnout. In W. B. Schaufeli, C. Maslach & T. Merck (Eds.), *Professional Burnout: Recent Developments in Theory and Research* (pp. 115-29) Washington, DC: Taylor & Francis.
- Houkes, I., Winants, Y., Twellaar, M. & Verdonk, P. (2011). Development of burnout over time and the causal order of the three dimensions of burnout among male and female GPs- A three wave panel study. *MC Public Health*, 11(240), 2-13.
- Hu, Q. & Schaufeli, W. B. (2011). Job insecurity and remuneration in Chinese family-owned business workers. *Career Development International*, 16, 6–19. doi:org/10.1108/13620431111107784
- Ioannou I. & Kyriakides L. (2006). Structuring a Model for the Determinants of Vocational Teacher Burnout. *CCEAM Conference 2006 "Recreating Linkages between Theory and Praxis in Educational Leadership". October 12-17. Nicosia, Cyprus.*
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory-Versions 4a and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.
- Janssen, P. P. M., Schaufeli, W. B., & Houkes, I. (1999). Work-related and individual determinants of three burnout dimensions. *Work & Stress*, 13(1), 74-86. <http://dx.doi.org/10.1080/026783799296200>
- Kalimo R., Pahkin K., Mutanen P. & Toppinen-Tanner S. (2003). Staying well or burning out at work: work characteristics and personal resources as long-term predictors. *Work Stress*, 17(2), 109–22.
- Karasek, R., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. New York: Basic Books.
- Katz, D. & Kahn, R. L. (1978). *The social psychology of organizations* (2nd ed.). New York, NY: Wiley.
- Kokkinos, C. M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology*, 77(1) 229–243 doi:10.1348/000709905X90344
- Kristensen, T. S., Borritz, M., Villadsen, E. & Christensen, K. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, 19, 192-207. doi:10.1080/02678370 500297720

- Lakin, B., Leon, S. C. & Miller, S. (2007). Predictors of burnout in children's residential treatment center staff. *American Journal of Orthopsychiatry*, 53, 78–97.
- Langelan S., Bakker A.B., Lorenz J. P., Van Doornen L. J. P.& Schaufeli, W.B. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences* 40(3), 521–32.
- Lee, R. & Ashworth, B. E. (1996). A meta-analytic examination of the correlates of three dimensions of burnout. *Journal of Applied Psychology*, 81, 123–133.
- Leiter M. P. & Maslach C. (2005). A mediation model of job burnout. In: A.S.G. Antoniou & C.L. Cooper (Eds.) *Research companion to organizational health psychology* (pp. 544–564). Cheltenham: Edward Elgar.
- Lindblom, K. M., Linton, S. J., Fedeli, C. & Bryngelsson, I. (2006). Burnout working population: relations to psychosocial work factors. *International Journal of Behavioral Medicine*, 13, 51–59.
- Maslach, C. & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99–113.
- Maslach, C. & Jackson, S. (1984). Burnout in organizational settings. In S. Oskamp (Ed.), *Applied Social Psychology Annual (Vol. 5)*, Beverly Hills, CA: Sage.
- Maslach, C. & Schaufeli, W. B. (1993). Historical and conceptual development of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional Burnout: Recent Developments in Theory and Research* (pp. 1–16). Washington, DC: Taylor & Francis.
- Maslach, C, Schaufeli W. B & Leiter M. P. (2001). Job burnout. *Annual review of psychology*, 52, 397–422.
- Maslach, C. (2003). Job burnout: New New directions in research and intervention. *Current Directions in Psychological Science*, 12(5), 189–192. <http://dx.doi.org/10.1111/1467-8721.01258>.
- Maslach, C. (2006). Understanding job burnout. In: A.M. Rossi, P. Perrewe & S. Sauter (Eds.) *Stress and quality of working life: current perspectives in occupational health* (pp. 37–51). Greenwich: Information Age Publishing.
- McLean, J., Strongman, K., & Neha, T. (2007). Psychological distress, causal attributions, and coping. *New Zealand Journal of Psychology*, 36, 85-92.
- Michielsen, H. J., Willemsen, T. M., Croon, M. A., De Vries, J. & Van Heck, G. L. (2 0 0 4) . Determinants of general fatigue and emotional exhaustion: A prospective study. *Psychology and Health*, 19, 223–235.
- Miller, K. & Ellis, B.H. (1990). An integrated model of communication, stress and burnout in the workplace. *Communication Research*, 17(3), 27-30.
- Montero J., García-Campayo J. & Validez E. (2009). Factorial de la estructura del Cuestionario Breve de Burnout (CBB) en una muestra de docentes de Aragón. *Revista de Psicopatología y Psicología Clínica*, 14(2), 123–32.
- Paoli, P. & Merlié, D. (2001). *Third European Survey on Working Conditions 2000*. Dublin: European Foundation for the Improvement of Living and Working Conditions.
- Piedmont, R. L. (1993). A longitudinal analysis of burnout in the health care setting: The role of personal dispositions. *Journal of Personality Assessment*, 61, 457–473.

- Poghosyan, L., Aiken, L. H. & Sloane, D. M. (2009). Factor structure of the Maslach Burnout Inventory: An analysis of data from large scale cross-sectional surveys of nurses from eight countries. *International Journal of Nursing Studies*, 46, 894–902. doi:10.1016/j.ijnurstu.2009.03.004
- Polikandrioti, M. (2009). Burnout syndrome. *Health Science Journal*, 3, 195–196.
- Popov, B. & Popov, S. (2011). Struktura polnih razlika u doživljaju stresa na radu. *Primenjena psihologija*, 2, 179-195.
- Popov, B. (2013). Uslovi na radu i individualna uverenja zaposlenih kao prediktori organizacijskog zdravlja. Doktorska disertacija, Novi sad: Filozofski fakultet.
- Salanova, M. & Llorens, S. (2008). Current state of research on burnout and future challenges. *Papeles del Psicólogo*, 29(1): 59–67.
- Sanders, J. C., Fulks D. L. & Knoblett, J. K. (1995): Stress and stress management in public accounting. *The CPA Journal*, 65(8), 46–49.
- Sari, H. (2004). An analysis of burnout and job satisfaction among Turkish special school headteachers and teachers, and the factors effecting their burnout and job satisfaction. *Educational Studies*, 30(3), 291–306. doi:/10.1080/0305569042000224233
- Schaufeli, W. B. & Buunk, B. P. (2003). Burnout: An overview of 25 years of research in theorizing. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.). *The handbook of work and health psychology* (pp. 383–425). Chichester: Wiley.
- Schaufeli, W. B., & Greenglass, E. R. (2001). Introduction to special issue on burnout and health. *Psychology & Health*, 16(5), 501-510.
- Schaufeli, W. B., Leiter, M. P. & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 14, 204–220.
- Semmer, N. K. (2006). Personality, stress, and coping. In: Vollrath, M.E. (Ed.), *Handbook of Personality and Health* (pp. 73–113). New York: John Wiley and Sons Ltd.
- Slišković, A. & Burić, I. (2016). Zadovoljstvo poslom i sagorijevanje na poslu kod učitelja: važnost podrške ravnatelja i radne motivacije. *Društvena istraživanja*, 25(3), 371-392. doi:10.5559/di.25.3.05
- Smederevac, S. & Mitrović, D. (2006). *Ličnost— metodi i modeli*. Beograd: Centar za primenjenu psihologiju.
- Swider, B. W. & Zimmerman, R. D. (2010). Born to burnout: A meta-analytic path model of personality, job burnout, and work outcomes. *Journal of Vocational Behavior*, 76 (3), 487–506. <http://dx.doi.org/10.1016/j.jvb.2010.01.003>
- Tabachnick, B.G. & Fidell, L.S. (2001). *Using Multivariate Statistics (4th Edition)*. Boston: Allyn and Bacon.
- Van Heck, G. L. (1997). Personality and physical health: Toward an ecological approach to health-related personality research. *European Journal of Personality Research*, 11, 415–443.
- Vanheule, S., Rosseel, Y., & Vlerick, P. (2007). The factorial validity and measurement invariance of the Maslach Burnout Inventory for human services. *Stress and Health*, 23, 87–91. doi:10.1002/smi.1124

- Vilela, L. V. O. & Assuncao, A. A. (2004). Control mechanisms in a telemarketing call center and workers' complaints of fatigue and exhaustion. *Cadernos de Saúde Pública* 20(4), 1069-1078. doi:10.1590/S0102-311X2004000400022.
- Zellars, K. L., Perrewew, P. L., & Hochwarter, W. A. (2000). Burnout in health care: The role of the five factors of personality. *Journal of Applied Social Psychology*, 30, 1570–1598.
- Zhongying, S. (2008). Current Situation of Job Burnout of Junior High School Teachers in Shangqiu Urban Areas and Its Relationship with Social Support. *Frontiers of Education in China*, 3(2), 295–309. doi: 10.1007/s11516-008-0019-1
- Weber, A. & Jaekel-Reinhard, A. (2000). Burnout syndrome: a disease of modern societies? *Occupational Medicine*, 50(7), 512–7.
- Westman, M., Etzion, D., & Danon, E. (2001). Job insecurity and crossover of burnout in married couples. *Journal of Organizational Behavior*, 22(5), 467-481. doi:10.1002/job.91

Biljana Mirković

Univerzitet u Banjoj Luci, Filozofski fakultet

PERSONALNI I SITUACIONI KORELATI SAGORIJEVANJA ZAPOSLENIH U PROIZVODNJI

Sažetak

Ova studija nastojala je da ispita ulogu personalnih i situacionih faktora u objašnjenju sagorijevanja zaposlenih u proizvodnji. Konkretno, cilj ove studije je bio da se ispita koliko se sagorijevanje zaposlenih u proizvodnji može objasniti njihovim osobinama ličnosti i karakteristikama posla. Istraživanje je obuhvatilo 230 zaposlenih (49,1% žena), starosti od 19 do 59 godina ($M = 35,71$, $SD = 8,50$), čiji je radni staž u rasponu od 1 do 38 godina ($M = 10,07$, $SD = 7,76$). Korištena je Skala ličnog sagorijevanja, Skala sagorijevanja vezanog za posao, Inventar Velikih Pet, Skala nesigurnosti posla i Ček lista karakteristika posla (kvantitativna preopterećenost poslom, monotonija i nametnuti ritam rada). Rezultati hijerarhijske regresione analize pokazali su da osobine ličnosti modela Velikih Pet i korišćene mjere karakteristika posla značajno doprinose objašnjenju ličnog sagorijevanja i sagorijevanja vezanog za posao, dok su korišćene demografske varijable objasnile mali procenat varijanse ličnog sagorijevanja. Osim toga, dobijeni rezultati ukazuju da karakteristike posla imaju veću prediktivnu moć u objašnjavanju ličnog sagorijevanja i sagorijevanja vezanog za posao od osobina ličnosti.

Ključne riječi: sagorijevanje, osobine ličnosti, karakteristike posla, zaposleni u proizvodnji

THE NEED FOR EMOTIONS - A MOTIVE FOR INNOVATIVENESS OF THE CONTEMPORARY CONSUMER

Abstract

This article explores the role of the need for emotions as a motivating factor of innate consumer innovativeness. The essence and peculiarities of the need for activating experiences are revealed. A comparison of the construct with Cacioppo and Petty's need for cognition (1982) has been made and its distinction from other constructs relating to the emotional sphere of the personality. The major research approaches adopted in the conceptualization of consumer innovativeness are analyzed. Results of an empirical study confirming the underlying assumption of the predictive ability of the need for emotional experiences on the personal dimension innovativeness in the area of consumption are presented. In particular, regression analysis shows that a stronger hedonic need determines a greater desire and readiness of the consumer to adopt the innovative product and to engage in innovative behavioral activity. The survey was conducted in a sample of 1106 Bulgarian respondents aged between 20 and 65, randomly selected. The research toolkit used a set of two methodologies - Manning, Bearden and Madden's scale for innate consumer innovativeness (1995) and Raman and colleagues' scale (1995), measuring the need for emotions that demonstrate good psychometric qualities. In addition, the results are interpreted in accordance with leading theoretical trends and research in the area under consideration.

Keywords: need for emotions, consumer innovativeness, need for cognition, adoption of innovation

Introduction

Innovation plays a key role in the growth and survival of business in today's dynamic world. Creation of innovative products is becoming a primary strategy for companies to ensure their competitive position and market success. Organizations allocate enormous resources to research and development in order to speed up product innovation, meet market needs, and keep up to date with the fast-paced technological development (Sood & Tellis, 2005). Apart from ensuring business prosperity, innovations entail a high degree of risk in terms of return on investment. A number of studies have demonstrated that between 40 per cent and 90 per cent of innovative products never manage to achieve the financial targets set by companies (Gourville, 2006; Schnurr, 2005). This result draws research interest in marketing towards individual innovativeness suggested

¹ corresponding author tania_jd@abv.bg

as a primary factor for the success of innovative products. Innovativeness is a complex phenomenon determined by numerous factors comprising functional, social, cognitive, and hedonistic motives. At the heart of the latter lies the need for activating experiences which is poorly explored in the context of innovative behavior in the field of consumption irrespective of the significant role emotions have in the decision-making process for purchase. The present text focuses on the need for emotions and its predictive capability with respect to consumer innovativeness, or individuals' willingness to adopt innovative products.

Innate consumer innovativeness

The scientific literature abounds in definitions of innate consumer innovativeness. In general, the construct is defined as a global personal trait demonstrating individual's willingness to change (Hurt, Joseph & Cook, 1977) and his / her desire to try new marketing stimuli. Innate consumer innovativeness is part of individual's general innovativeness but it manifests in the field of consumption. It represents consumers' innate innovative nature (Im, Mason & Houston, 2007) and is also referred to as "global innovativeness" (Goldsmith & Hofacker, 1991), "dispositional innovativeness" (Steenkamp & Gielens, 2003), or "innovative predisposition" (Midgley & Dowling, 1978).

This construct is believed to be genetically pre-determined (Hirschman, 1980; Hirschman & Stern, 2001), i.e. every individual is born with a particular level of innovativeness (Hynes & Lo, 2006). However, the degree to which it is going to manifest in an individual's behaviour towards innovative products depends on numerous factors such as personal characteristics, environment-based conditions, etc. (Hirschman, 1980; Rogers, 2003).

Steenkamp, Hofstede and Wedel define innate consumer innovativeness as individual predisposition targeted at buying new products and brands rather than remaining with previous consumer choices and patterns of behavior (Steenkamp, Hofstede & Wedel, 1999).

Hirschman, similar to Manning and colleagues, describes the construct as individuals' willingness to seek out novelty and difference in consumption, i.e. "innate novelty-seeking" (Hirschman, 1980; Manning, Bearden & Madden, 1995). It is an inherent drive, or a motivational force that induces information activity in consumers (Pearson, 1970). Hirschman emphasizes that innate novelty-seeking is related to innovative behavior through "actualized novelty-seeking" (Hirschman, 1980), which stands for a group of activities targeted at acquiring information in the field of consumption.

Researchers such as Midgley and Dowling define innate consumer innovativeness based on the independent decision to adopt an innovative product regardless of the experience shared in the social system. The authors claim that individuals who are reluctant to seek out information or support from

their social environment are bound to adopt innovations earlier. In other words, the consumer's decision-making whether to engage in innovative behavioral activity is governed by his / her innovativeness rather than by information based on personal experience with the product, which is subject to interpersonal communication (Midgley & Dowling, 1978).

Other definitions exist that associate the construct with individuals' openness to information processing (Leavitt & Walton, 1975). The latter represents a cognitive style involving certain perceptive, attitudinal, and intellectual characteristics of consumers that impact the way they would respond to innovative products as well as the sensations, experiences and communication which they entail (Joseph & Vyas, 1984). According to Kirton, individual cognitive style may vary in the continuum from "doing things better" (typical of highly adaptive personalities) to "doing things differently" (typical of innovative individuals) (Kirton, 1980).

A different perspective on revealing the essence of innate consumer innovativeness is defining it as the proportionate amount of risk that a consumer is willing to take in order to acquire an innovative product, considering various dimensions of risk such as financial, social, psychological, etc. (Cancion, 1967).

Unlike most researchers who describe the construct discussed as mono-dimensional, Venkatraman and Price decompose it into cognitive and sensory elements by relating it to the general need for stimulation or the propensity for seeking out experiences that activate the mind and arouse the senses (Venkatraman & Price, 1990). Consumers' varying preferences for experiences result in different mental and behavioral activities (Pearson, 1970) towards innovative products. It is believed that certain individuals prefer sensory stimulation while others attach greater importance to cognitive stimulation, yet others seek both – new mental activities and sensory experiences (Venkatraman & Price, 1990). Cognitive innovativeness is conditioned by the need for acquiring new knowledge of things, facts, processes, and their interconnectedness. The manifestation of this dimension of the construct promotes mental activity and develops the cognitive aspect of personality (Venkatraman, 1991). It refers to consumers as "cognitive innovators" who seek out new experiences that stimulate the mind. Sensory innovativeness is typical of individuals termed "sensory innovators" who prefer experiences that arouse the senses. They are not likely to structure and analyze new information but would rather use it in order to meet their need for novelty (Hirunyawipada & Paswan, 2006). Cognitive innovators invest all their mental energy in reaching the root of the problem and finding explanation for facts (Pearson, 1970), whereas sensory innovators enjoy novelties without engaging in deep contemplation (Zuckerman, 1979).

Studies show that the cognitive component of innovativeness relates to the need for cognition, whilst the sensory one has to do with the need for arousal through unusual stimuli and risk-taking (Venkatraman & Price, 1990), as well as the need for emotion (Lee, 2016). Sensory innovators are attracted to innovations, driven by the need to experience sensory pleasure and feel activating emotions

subsequently rationalizing the benefits and advantages of the product. In contrast, cognitive innovators are attracted to innovations, motivated by their need for new knowledge and pleasure derived from the intellectual effort they have made. Their emotion derives from the fact that they have learned something new and enhanced their level of knowledge. Consequently, sensory innovators would be attracted by the hedonistic attributes of the product and would prefer innovations that provide them with emotional experiences and arouse their senses, whereas cognitive innovators would be attracted by the utilitarian attributes of the product and would choose innovative products which provide them with functional benefits.

Based on the above, innate consumer innovativeness can be summarized as a global personal trait which represents individuals' willingness and desire to seek out novelty and difference in the field of consumption. It comprises cognitive and sensory components. Innate consumer innovativeness relates to individuals' openness to information processing and the independent nature of their decision whether to adopt an innovation (a product or service) from the experience shared through horizontal communication.

The literature review on the matter has shown that one of the main factors determining innate consumer innovativeness is the individual's hedonistic motivation governed by his / her need for emotions.

Need for emotions

"Need for emotions" was conceived of as a construct in 1995 by Raman, Chattopadhyay and Hoyer. It has been defined as individuals' stable propensity to seek out and enjoy emotional stimuli and situations and express their preference regarding the use of emotions in interacting with the world (Raman, Chattopadhyay & Hoyer, 1995). Similarly to any other need, the need for emotions suggests a shortage which urges the personality to overcome the deficiency and restore balance in the organism by engaging in activating experiences. As other researchers such as Harris and Moore (1990), Larsen and Diener (1987), the authors of the construct posit that individuals differ in terms of the degree of their desire to seek out emotional stimuli, as well as according to their expressiveness, orientation, and intensity of emotional experience. Consequently, some consumers actively seek out emotional stimuli as a result of their stronger need for emotions unlike others who try to avoid such stimuli at any rate. Raman and colleagues use the term "emotions" to refer to short-term emotional states differentiating them from long-term ones such as moods and feelings (Raman et al., 1995).

The "need for emotions" construct is believed to contribute to a better understanding and explanation of individuals' behavioral patterns as it represents consumers' lasting propensity to seek out and enjoy emotional experiences. In

this regard, Jon Elster (1998, 1996) emphasizes that numerous patterns of human behavior could not be understood unless examined from the perspective of emotions.

To ensure a more profound understanding of the need for emotions, it has to be differentiated from other theoretically similar constructs related to the individual's emotional sphere, e.g. affect intensity, affective orientation, and need for affect.

Affect intensity is defined as the strength of the emotional response to a particular affective stimulus (Diener, Larsen, & Emmons, 1985). Individuals are believed to demonstrate varying degrees of intensity when experiencing a certain emotion; while intensity does not depend on the emotion's valence, i.e. positive or negative, it is closely related to the strength of the emotional stimulus that induced it (Larsen & Diener, 1987; Larsen, Diener & Emmons, 1986). Larsen, Diener and Emmons describe the construct as a stable individual variable based on research results revealing that particular individuals constantly demonstrate either stronger or weaker emotional reactions. Following a series of experiments, they proved that highly intensive subjects respond to real and hypothetical life events with strong or more intense emotional reactions irrespective of whether the latter induced positive or negative emotional responses (Larsen et al., 1986). In addition, individuals who are high in affect intensity experience negative emotions caused by negative stimuli painfully and excruciatingly. At the same time, such people feel strong pleasure when they are subjected to positive emotional stimulation unlike individuals with low affect intensity (Moore, Harris & Chen, 1994).

Based on the above, it can be concluded that individuals who are high in affect intensity will tend to seek out and enjoy positively charged emotional stimuli, and respectively, avoid negative ones (Gallagher, Braaten, Hovland & Kemp, 1989). Despite the fact that both constructs involve propensity for either seeking or avoiding emotions, they differ conceptually: one emphasizes the intensity of the emotion caused by the stimulus while the other highlights the desire for seeking out and experiencing positive emotions.

Affective orientation is another construct that is very similar to the need for emotions. It is defined as individuals' tendency to use emotions as a source of information affecting their decisions and actions (Booth-Butterfield & Booth-Butterfield, 1990). People with high values on this indicator demonstrate awareness and sensitivity to emotional experiences which affect their decisions. In contrast, individuals with low values on the above indicator attach importance to reasoning and objective facts, which govern their decisions while emotions remain in the background (Booth-Butterfield & Booth-Butterfield, 1990). The broader of the two constructs is the need for emotions as it goes beyond the role of emotions in individuals' decisions and their interaction with the world; rather, it demonstrates individuals' tendency to seek out and enjoy emotional stimuli and situations.

It is important to make a distinction between need for emotions and the construct referred to as “*need for affect*” in the scientific literature, which also measures individual differences in the motivation to approach emotional experiences. The need for affect was introduced and defined by Maio and Esses as individual’s general motivation to seek or avoid emotion-inducing situations or activities. It involves the desire to understand and experience not only one’s own emotions but also those of others. People who believe that emotions aid their decisions and actions will be motivated to seek them actively unlike those who consider emotions counter-productive, feel uncomfortable under their influence, and thus avoid them (Maio & Esses, 2001). Regardless of the similarities between the two constructs, they differ based on the research tool used as well as in terms of their range. Need for affect is the broader construct. Its conceptualization involves a broader understanding of affect in social psychology as a combination of emotions, evaluations, attitudes, and feelings while the “need for emotions” construct restricts experiences to shorter-term emotional states. Furthermore, the need for affect involves two dimensions that are in a negative correlation, i.e. motivation to seek and avoid emotions. The need for emotions measures the overall propensity/motivation for activating experiences whereby high values are associated with motivation for emotionally charged stimuli while low values are linked to motivation for avoiding such stimuli (Raman et al., 1995).

The “need for emotions” construct has been conceived by the authors as an alternative to the “need for cognition” as suggested by Cacioppo and Petty (1982). Consumers with high values on the second indicator are thinkers who delight in reaching the root of the problem through deep contemplation (Murphy, 1947). On the other hand, individuals with a strong need for emotions focus on feeling and experiencing, taking pleasure in emotionally charged stimuli and situations; they are oriented towards hedonistic consumption related to experiences, fantasies, multisensory images, and emotional arousal (Hirschman & Holbrook, 1982). These people seek out novelty and difference in the field of consumption, and prefer sensory information gathered through the senses, i.e. they would rather see and feel the product, smell and taste it, etc. Therefore given the information’s emotional aspect, the need for emotions becomes a motivating factor for information-seeking or cognitive activity based on individual’s need for cognition.

The need for emotions is related to the consumer’s optimum stimulation level (Schwartz & Sagiv, 1995) seen as a homeostatic stimulation level unique to every individual and one he/she feel comfortable with. Any deviation from the homeostatic value leads to activities aimed at reducing or increasing stimulation coming from the consumer’s surroundings (Raju, 1980). Accordingly, individuals with a strong need for emotions will have a higher optimum stimulation level (given that the environment does not provide sufficient stimulation), which will motivate them to explore the environment and seek out emotional stimuli so as to restore the homeostasis and meet their need for emotions.

The “need for emotions” construct has been understudied in the context of consumer innovativeness. According to Berlyne, the two constructs are conceptually related as far as individuals’ willingness and desire for new stimuli are concerned (Berlyne, 1960). Analyzing data from two consecutive studies, Aroean and Michaelidou (2014) confirm the relationship between the need for emotions and consumer innovativeness. Bell (2000) has also established a correlation between the two constructs, in particular with the sensory dimension of innovativeness. In this regard Park and colleagues suggest that sensory innovators are attracted by novelty and change which arouse their interest being the most activating human emotion (Park, MacInnis, Priester, Eisengerich & Iacobucci, 2010). In other words, the need for emotions will affect the sensory dimension of innovativeness because new products will be perceived as a means for satisfying the emotional deficiency in individuals with a strong need for emotions. Innovations will arouse the interest of the consumer and thus provide him with sensory stimulation.

Based on the theoretical framework presented and the outcomes of extant research in the field, it can be concluded that the need for emotions will affect consumers’ willingness to adopt innovative products through their motivation to seek out and enjoy emotionally charged stimuli in order to satisfy their deficit of activating experiences.

Survey

The purpose of the present survey is to test the predictive ability of the need for emotions with respect to the innate consumer’s innovativeness.

The main hypothesis that is tested is the assumption that the need for emotions will have a statistically significant impact on the inherent consumer’s innovativeness. Specifically, a stronger need for activating experiences will determine consumer’s greater willingness to adopt innovative products.

Sample

The survey was conducted in a sample of 1106 Bulgarian respondents aged between 20 and 65. The average age of the respondents is 41, with the largest percentage of them aged 24 and below (36.3%). The sample is relatively balanced in terms of gender (55.1% female and 44.9% male) and education (54.2% university graduates and 45.8% secondary school graduates). The majority of the respondents do not have children in the family (71.6%) and earn between BGN 501 and 1000 monthly (32.2%).

The sample includes students from various universities, employees from various public and private organizations and freelancer professionals in Bulgaria randomly selected– on the basis of the “everyone who responded” principle. Two methods are used for filling in of the questionnaires by the surveyed persons – on a paper carrier and online.

Measures

A set of two methods has been used for the purpose of the present research. The first one is the need for emotions scale developed by Raman, Chattopadhyay and Hoyer. The construct is examined as individuals' propensity to seek out and enjoy emotionally charged stimuli and situations and exhibit a preference to use emotions in interacting with the world (Raman et al., 1995). The scale is composed of 12 items measuring individual differences in the motivation to approach emotional experiences.

The second method is based on the scale of Manning, Bearden and Madden (1995), measuring innate consumer innovativeness, or individuals' willingness or desire to seek out novelty and difference in the field of consumption. The tool involves two subscales described as follows:

Consumer novelty-seeking viewed as consumers' willingness and desire to seek out new product-related information. The subscale consists of eight items.

Independent decision-making defined as the degree to which consumers' decisions are independent of the communicated experience of others (the experience shared in social circles). The subscale comprises six items.

A 5-point Likert-type scale ranging from 1 (*disagree*) to 5 (*agree*) has been used by both methods to record the respondents' answers.

Both tools demonstrated good psychometric qualities as applied in a sample of 1106 Bulgarian respondents. The values of the internal consistency coefficient between the individual items are as follows: need for emotions - $\alpha = 0.88$, innate consumer innovativeness (whole scale) - $\alpha = 0.72$, consumer novelty-seeking subscale - $\alpha = 0.87$, and respectively, independent decision-making subscale - $\alpha = 0.79$.

Results

The test of the proposed hypothesis is made by the use of a linear regression analysis preceded by a correlation one. The result from the correlation analysis has revealed the presence of weak statistically significant correlations between the need for emotions and the innate innovativeness and its individual subscales. Higher values of the correlation coefficient are reported in the *consumer novelty-seeking* subscale compared to these in the *independent decision-making* scale. The result is presented in the next table (table 1).

Table 1. Correlations between need for emotion and innate consumer innovativeness and its subscales

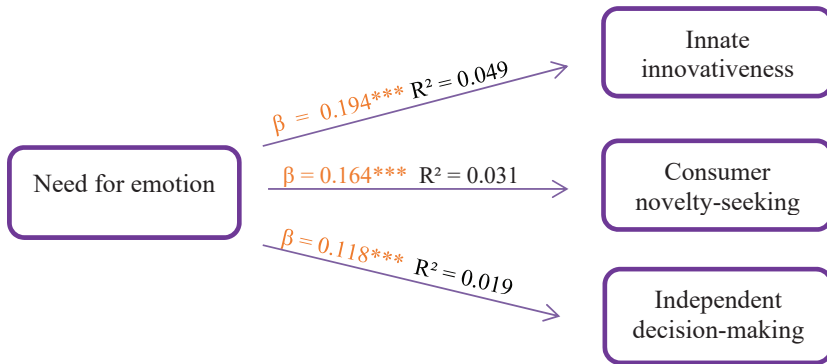
Variable	Need for emotion
Innate consumer innovativeness	.194**
Consumer novelty-seeking	.164**
Independent decision-making	.118**

**p < .01

The linear regression analysis conducted between the independent variable of "need for emotions" and the dependent one - "innate consumer innovativeness"

(whole scale) revealed a weak (in terms of strength) and linear (in terms of direction) statistically significant correlation ($R = 0.194$; $p < 0.05$; $R^2 = 0.049$). The need for emotions is a predictor of innate innovativeness and accounts for 4.9 per cent of its variations.

As regards the individual innovativeness subscales, the regression models have revealed that they both are determined by the dependent variable “need for emotions”, which explains 3.1% of the variations in the consumer’s readiness to search for information for the innovation and 1.9% of the changes in the independence of the consumer’s decision to accept it from the experience shared in the social environment. The discussed regression analyses are presented in the next figure (fig. 1).



*** $p < .001$

Figure 1. Regression analysis between need for emotion and innate consumer innovativeness and its subscales

Discussion

According to the regression model presented, a stronger need for emotion will determine a greater willingness on the part of the consumer to engage in innovative behavioral activity. This result is expected given the fact that contemporary consumer experience a serious deficiency of emotions and activating experiences. In an effort to satisfy it, the consumer turn to various marketing stimuli, including novel ones such as innovations (Raman et al., 1995). Novelty and difference are the factors that induce emotion in individuals, and interest in particular, which is a highly activating emotion manifested as curiosity and eagerness to examine and research the specific product. Acquiring new knowledge has not only a cognitive but also an emotional aspect because learning new information triggers excitement and curiosity in consumers. This means that individuals who have a strong need for emotions will engage in information-seeking out of hedonistic reasons or in order to obtain activating experiences. They

will prefer sensory information obtained through advertising which is capable of inducing a wide range of emotions, or through direct experience with the product, which will allow them to touch it, taste it or smell it, etc., i.e. consumers will obtain emotions through their senses. As a result, they will demonstrate a greater willingness to adopt the innovation. In other words, the need for emotions will affect the sensory component of innovativeness because the new product will be perceived as a means for satisfying the individual's emotional deficiency. The above reasoning has found support in numerous studies. For instance, Lee (2016) has established that consumers' innovativeness is positively influenced by their need for emotions. Venkatesan (1973) concludes that innovative products may help individuals maintain their internal level of stimulation. In addition, Wood and Moreau (2006), Bagozzi, Gopinath and Nyer (1999) highlight the significant role of emotions in individual behavior including regarding innovation.

The identified stronger effect of the need for emotions on the *consumer novelty-seeking* subscale is also expected in view of the fact that the need of activating experiences is one of the main drivers for setting the consumer into behavior of information seeking (Wilson, 1981). The consumer will thus make a decision for the purchase of the innovative product on the basis of his/her personal experience with it and the information acquired from the mass media, without relying on the others' experience, shared in the social system, because the sensory information acquired by the consumer is a means of recovering his/her optimal stimulation level

Survey limitation

The use of self-reporting tools for measuring the surveyed variables can be pointed out as a limitation of the present survey. In the self-report method there is possibility that the respondents are not sufficiently aware of their emotions, attitudes and motives, that they are not able to remember precisely various details of their behavior set in separate statements, as well as that they give socially desirable answers, which may throw into question the reliability of the collected data.

Conclusion

Emotions are an integral part of human nature. They also accompany individual's behavior in the field of consumption playing a key role in every stage of the decision-making process for purchasing innovative products. The dominant perception of contemporary consumer is that he is Homo Economicus, or rationally acting entity aiming to maximize benefit for itself on the basis of thorough knowledge of the market. Rational and cognitively active being, he takes purchasing decisions only after he has been convinced in the product utility, having analyzed a large amount of information from various sources. The idea of Homo Economicus is primarily associated with the utilitarian or functional features (Bettman, 1979)

of the products consumers buy to meet their needs. Considering, however, that in their satisfaction the consumer experiences gratification, which is experienced as an emotion, it can be said that he (the consumer) is not only rational but also emotional - feeling, experiencing and hedonistically oriented. He looks for products that will not only satisfy his purely pragmatic needs but whose novelty and difference, especially as far as innovative products are concerned, will provide him with activating experiences. Hence, along with their rational motivation, consumers are attracted to towards innovation by the desire to experience satisfaction and pleasure as well as delight in their fantasies. Examining the need for emotions as a factor for consumer innovativeness enriches the knowledge and understanding of innovative behavior in the field of consumption beyond its rational characteristics.

References

- Aroean, L. & Michaelidou, N. (2014). A Taxonomy of Mobile Phone Consumers: Insights for Marketing Managers, *Journal of Strategic Marketing*, 22(1), 73-89.
- Bagozzi, R., Gopinath, M. & Nyer, P. (1999). The Role of Emotions in Marketing, *Journal of the Academy of Marketing Science*, 27(2), 184-206.
- Bell, T. (2000). *Emotion Marketing and Innovation*. New York: McGraw Hills.
- Berlyne, D. (1960). *Conflict, Arousal and Curiosity*. New York: McGraw Hill.
- Bettman, J. (1979). *An Information Processing Theory of Consumer Choice*, Reading, MA: Addison-Wesley.
- Booth Butterfield, M. & Booth Butterfield, S. (1990). Conceptualizing Affect as Information in Communication Production, *Human Communication Research*, 16(4), 451-476.
- Cacioppo, J. & Petty, R. (1982). The Need for Cognition, *Journal of Personality and Social Psychology*, 42, 116–131.
- Cacion, S. (1967). *Innovation and Taking Risk*. NJ, Hillsdale: Lawrence Erlbaum.
- Diener, E., Larsen, R. & Emmons, R. (1985). Frequency and Intensity: The Underlying Dimensions of Affect, *Journal of Personality and Social Psychology*, 48, 1253-1265.
- Elster, J. (1996). Rationality and Emotions, *The Economic Journal*, 106, 15-18.
- Elster, J. (1998). Emotions and Economic Theory, *The Journal of Economic Literature*, 36, 47-74.
- Gallagher, J., Braaten, A., Hovland, M. & Kemp, A. (1989). Use of An Interpretation Station for the Study of Shal-Low Gas Sands on Haltenbanken. In Abstr. NPF Conf. Shallow Gas & Leaky Reservoirs, Stavanger, 10-11 April.
- Goldsmith, R. & Hofacker, C. (1991). Measuring Consumer Innovativeness, *Journal of the Academy of Marketing Science*, 19(3), 209-221.
- Gourville, J. (2006). Eager Sellers and Stony Buyer: Understanding the Psychology of New-Product Adoption, *Harvard Business Review*, 84 (June), 98–106.
- Harris, W. & Moore, D. (1990). Affect Intensity as an Individual Difference Variable in Consumer Response to Advertising Appeals, *Advances in Consumer Research*, 17, 792-797.

- Hirschman, E. (1980). Innovativeness, Novelty Seeking, and Consumer Creativity, *Journal of Consumer Research*, 7(3) (December), 283-295.
- Hirschman, E. & Holbrook, M. (1982). Hedonic Consumption: Emerging Concepts, Methods and Propositions, *Journal of Marketing*, 46(3), 92-101.
- Hirschman, E. & Stern, B. (2001). Do Consumers' Genes Influence Their Behavior? Findings on Novelty Seeking and Compulsive Consumption, *Advances in Consumer Research*, 28, 403-410.
- Hirunyawipada, T. & Paswan, A. (2006). Consumer Innovativeness and Perceived Risk: Implications for High Technology Product Adoption, *Journal of Consumer Marketing*, 23(4), 182-198.
- Hurt, H., Joseph, K. & Cook, C. (1977). Scales for the Measurement of Innovativeness. *Human Communication Research*, 4(1), 58-65.
- Hynes, N. & Lo, S. (2006). Innovativeness and Consumer Involvement in the Chinese Market. *Singapore Management Review*, 28(2), 31-46.
- Im, S., Mason, C. & Houston, M. (2007). Does Innate Consumer Innovativeness Relate to New Product / Service Adoption Behavior? The Intervening Role of Social Learning via Vicarious Innovativeness, *Journal of the Academy of Marketing Science*, 35(1), 63-75.
- Joseph, B. & Vyas, S. (1984). Concurrent Validity of a Measure of Innovative Cognitive Style, *Journal of the Academy of Marketing Sciences*, 12(1), 159-175.
- Kirton, M. (1980). Adaptors and Innovators in Organizations, *Human Relations*, 3, 213-224.
- Lee, B. (2016). *Innovation, Innovativeness and Personality*. Cambridge, Mass: MIT Press.
- Larsen, R. & Diener, E. (1987). Affect Intensity as an Individual Difference Characteristic: A Review, *Journal of Research in Personality*, 21, 1-39.
- Larsen, R., Diener, E. & Emmons, R. (1986). Affect Intensity and Reactions to Daily Life Events, *Journal of Personality and Social Psychology*, 51, 803-814.
- Leavitt, C. & Walton, J. (1975). Development of A Scale For Innovativeness, *Advances in Consumer Research*, 2(1), 545-55.
- Maio, G. & Esses, V. (2001). The Need for Affect: Individual Differences in the Motivation to Approach or Avoid Emotions, *Journal of Personality*, 69, 583-616.
- Manning, K., Bearden, W. & Madden, T. (1995). Consumer Innovativeness and the Adoption Process, *Journal of Consumer Psychology*, 4(4), 329-345.
- Midgley, D. & Dowling, G. (1978). Innovativeness: The Concept and Its Measurement, *Journal of Consumer Research*, 4(4), 229-242.
- Moore, D., Harris, W. & Chen, H. (1994). Exploring the Role of Individual Differences in Affect Intensity on the Consumer's Response to Advertising Appeals. In A. Chris & J. Deborah (Eds.), *Advances in Consumer Research*, 21, 181-187.
- Murphy, G. (1947). *Personality: A Biosocial Approach to Origins and Structure*. New York: Harper.
- Park, C., MacInnis, D., Priester, J., Eisengrich, A. & Iacobucci, D. (2010). Brand Attachment and Brand Attitude Strength: Conceptual and Empirical Differentiation of Two Critical Brand Equity Drivers, *Journal of Marketing*, 74(November), 1-17.
- Pearson, P. (1970). Relationships between Global and Specific Measures of Novelty Seeking, *Journal of Consulting and Clinical Psychology*, 34(2), 199-204.

- Raju, P. (1980). Optimum Stimulation Level: Its Relationship to Personality, Demographics, and Exploratory Behavior, *Journal of Consumer Research*, 7(3) (December), 272-282.
- Raman, N., Chattopadhyay, P. & Hoyer, W. (1995). Do Consumers Seek Emotional Situations: The Need for Emotions Scale, *Advances in Consumer Research*, 22, 537-542.
- Rogers, E. (2003). *Diffusion of Innovations* (5th edn.). New York: Free Press.
- Schnurr, K. (2005). Making Product Commercialization More Successful, *Medical Device Technology*, 16, 26-27.
- Schwartz, S. & Sagiv, L. (1995). Identifying Culture-Specifics in the Content and Structure of Values, *Journal of Cross-Cultural Psychology*, 26, 92-116.
- Sood, A. & Tellis, G. (2005). Technological Evolution and Radical Innovation?, *Journal of Marketing*, 69(3), 152-168.
- Steenkamp, E., Hofstede, F. & Wedel, M. (1999). A Cross-National Investigation Into. The Individual and National Cultural Antecedents of Consumer Innovativeness, *Journal of Marketing*, 63(2) (April), 55-69.
- Steenkamp, J. & Gielens, K. (2003). Consumer and Market Drivers of the Trial Probability of New Consumer Packaged Goods, *Journal of Consumer Research*, 30(3) (December), 368-384.
- Venkatesan, M. (1973). Cognitive Consistency and Novelty Seeking. In S. Ward & T. Robertson (Eds.), *Consumer behavior – Theoretical sources* (pp. 354-384), Englewood Cliffs, NJ: Prentice Hall.
- Venkatraman, M. (1991). The Impact of Innovativeness and Innovation Type on Adoption, *Journal of Retailing*, 67(1), 51-67.
- Venkatraman, M. & Price, L. (1990). Differentiating Between Cognitive and Sensory Innovativeness: Concepts, Measurement, and Implications, *Journal of Business Research*, 20(4), 293-315.
- Wood, S. & Moreau, C. (2006). From Fear to Loathing? How Emotion Influences the Evaluation and Early Use of Innovations, *Journal of Marketing*, 70, 44-57.
- Zuckerman, M. (1979). *Sensation Seeking: Beyond the Optimal Level of Arousal*. Hillsdale, NJ: Lawrence Erlbaum.

Tatyana Yordanova

Sofia University "St. Kliment Ohridski"

POTREBA ZA EMOCIJAMA – MOTIV ZA INOVATIVNOŠĆU SAVREMENOG POTROŠAČA

Sažetak

Ovaj članak istražuje ulogu potrebe za emocijama kao motivirajućeg faktora urođene potrošačke inovativnosti. Otkrivena je suština i specifičnosti potrebe za aktiviranjem iskustava. Upoređen je konstrukt sa Cacioppo-ovom i Pettijevom potrebom za spoznajom (1982) i njeno razlikovanje od ostalih konstrukata koji se odnose na emocionalnu sferu ličnosti. Analizirani su glavni istraživački pristupi u

konceptualizaciji inovativnosti potrošača. Predstavljene su rezultati empirijskog istraživanja koje potvrđuje temeljnu pretpostavku prediktivne sposobnosti potrebe za emocionalnim iskustvima na inovativnosti lične dimenzije u području potrošnje. Konkretno, regresiona analiza pokazuje da jača hedonistička potreba određuje veću želju i spremnost potrošača da usvoji inovativni proizvod i uključi se u inovativne aktivnosti ponašanja. Istraživanje je sprovedeno na uzorku od 1106 bugarskih ispitanika starih između 20 i 65 godina, nasumično odabranim. U istraživanju je korišćen skup dve metodologije - Manning, Bearden i Maddenova skala za urođenu potrošačku inovativnost (1995) i Raman i kolega (1995), mereći potrebu za emocijama koje pokazuju dobre psihometrijske karakteristike. Pored toga, rezultati su tumačeni u skladu sa vodećim teorijskim trendovima i istraživanjima u oblasti koja se razmatra.

Ključne reči: potreba za emocijama, potrošačka inovativnost, potreba za spoznajom, usvajanje inovativnosti

EXAMINATION OF THE RELATIONS OF TWO PERSONALITY MODELS ON A CLINICAL POPULATION (HEXACO AND VP + 2)

Abstract

This paper presents a research directed towards examining the relationships between two models of basic personality traits on the clinical population (HEXACO and VP + 2). More specifically, the objectives were to determine the reliability of the instruments, the inter-correlation between the basic dimensions of the instruments used and the discriminatory potential of HEXACO and VP + 2 in distinguishing healthy, neurotic and psychotic respondents. The study was conducted on a sample of 150 subjects, divided into three subsamples, 50 "psychotic", 50 "neurotic" and 50 "healthy subjects". Instruments used: The HEXACO Personality Inventory (Ashton & Lee, 2007) and the Big Five Plus Two Questionnaire - VP + 2 (Smederevac, Mitrović & Čolović, 2010). Reliability was tested by the method of internal consistency. It has been found that VP + 2 compared to HEXACO model has a higher degree of reliability. HEXACO questionnaire has satisfactory reliability for the scales Agreeableness ($\alpha = 0.724$) and Extraversion ($\alpha = 0.708$), while the remaining scales are below the limits of acceptable reliability. On the seven scales of questionnaire VP + 2, six scales have acceptable reliability, and the largest one is for Neuroticism ($\alpha = 0.877$). By analyzing inter-correlation, the results have shown that the largest overlap of the content of the dimensions of both inventories, have the dimensions of Extraversion, Conscientiousness and Openness. The negative correlation of Aggressiveness with Honesty and Agreeableness has been determined. The dimension Negative Valence is related to all dimensions of the HEXACO model, while the dimension of Positive Valence correlates with Honesty, Extraversion, Conscientiousness and Openness. The dimensions of Neuroticism and Emotionality are in statistically significant positive correlation. In assessing the success of predicting group's belongingness, it turned out that the VP + 2 model has a 10% better performance compared to HEXACO. The results are consistent with the research of the relationship between HEXACO and VP + 2 models.

Key words: *personality traits, HEXACO model, Big Five Plus Two model, clinical population.*

Introduction

In the last few decades, there has been significant advance in understanding individual differences in personality (Stelmack, 2004). There is general agreement that the list of the majority of personality traits can be brought under a smaller

¹ corresponding author novakovicmarina@gmail.com

number of independent factors. What creates most dilemmas is, which of these factors are fundamental. Also, the structure of the space of personality traits can be observed through several different theoretical and empirical aspects. Initially, many researches have been directed towards compiling a questionnaire for evaluation of the personality. Those researches were started for the purpose of operationalization of psycho-lexical models, and later their focus spread onto researching causal and biological basis. Today we distinguish two dominant approaches of personality studying and investigating the basic personality structure – psychobiological and psycho-lexical (Smederevac et al, 2010).

Psycho-biological models of personality today attract attention, which can be attributed to the growth of the popularity of physiological and genetic studies, the results of which converge towards conclusion that the stable individual personality differences are biologically predisposed (Mitrović and Smederevac, 2007). In most psycho-biological models, three dimensions have been separated. However, even though there is some consensus about the number, these are numerous conceptual disagreements. Many researches which are focused on biological and psycho-physiological determinants of temperament and personality, start from the hypothesis founded by Pavlov and Eysenck in their classical, experimental personality studies (Stelmack, 2004).

Hans Eysenck is one of the most relevant authors in this area, judging by the number of citations. He provided the first empirical confirmation of the two important personality dimensions – extraversion and neuroticism (Smederevac and Mitrović, 2006). In his later works, wondering whether certain pathological types were included in the distribution of the dimension as extreme cases on the negative pole, he distinguished Psychoticism (P), and that is how the famous PEN model was created. Eysenck's researches have triggered many questions determining which structures and functions of the brain are connected to personality.

The findings of psycho-lexical approach are surely connected to the genetic researches and psycho-biological perspective.

Lexical approach for determining important personality qualities starts with lexical hypothesis introduced in 1936 by Allport and Albert. It states that the individual differences that are the most enduring and the most socially relevant in people's lives, shall timely become coded in the language: the more important the difference is, the more likely it is that it shall be expressed as one word (Smederevac and Mitrović, 2006). Lexical hypothesis assumes that all socially relevant terms, important for the description of personality, shall be coded into the spoken language (Čolović et al., 2005).

Five-factor model of personality structure was first discovered by Donald W. Fiske (Goldberg et al., 2006), by analyzing Cattell's results. This five-factor solution becomes a standard in this area, with certain exceptions. Recent researchers also confirm five-factor solution of personality qualities (Smederevac et al., 2010).

Further psycho-lexical researches (Ashton & Lee, 2007), have led to the formation of six-factor personality model, the HEXACO model. The model has

come out of the revised analysis of lexical researches of personality, which has proved the preponderance of the six-dimension description of personality. Six-factor structure came out of the lexical analysis of the German, French, Dutch, Hungarian, Italian, Korean and Polish language. Ashton and Lee (Ashton & Lee, 2007), think that three out of five factors of the five-factor model closely overlap, while the other three factors of the HEXACO model are in a more complex relationship with the other two from the five-factor model.

Neuroticism in HEXACO model excludes anger, which mostly defined (low) Emotional stability from the Big five, and includes Sentimentality, which in the Big five defined Pleasantness (Ashton and Lee, 2007). Thus, as a more adequate term for neuroticism, the term Emotionality was adopted. And vice versa, the factor which is closest to Pleasantness from the Big five, here excludes sentimentality and includes (the lack of) anger.

Therefore, the factors that overlap are *Extraversion* (X), *Conscientiousness* (C), and *Openness to experience* (O), provided that the openness to experience of this model only partly represents the one from the five-factor model, because it omits intellectual content which is not confirmed by lexical analyses in some languages, like Italian. Other used factors are *Emotionality* (E), *Agreeableness* (A) and *Honesty* (H). Besides in the lexical approach, authors also find the support for their model in the theoretical approach, thus the six HEXACO factors can be interpreted with the terms of theoretical biology (Ashton and Lee, 2007).

Telegen and Wohler discovered the seven-factor model of personality (Smederevac, 2002). As a result of psycho-lexical researches in Serbia, an instrument called *The big five plus two* (VP+2; Smederevac et al., 2010) has been devised, in which seven-factor model of basic personality dimensions is offered. Its purpose is the evaluation of seven personality dimensions of the highest hierarchy level, where each of them occupies two or three dimensions of the smaller scope. Basic personality dimensions created by the Big five plus two (VP+2) questionnaire are: *Neuroticism*, *Extraversion*, *Conscientiousness*, *Aggressiveness*, *Openness to experience*, *Negative valence* and *Positive valence*. *Neuroticism* is the dimension of individual differences in the level of reactivity to the potentially disturbing stimuli and it presents the tendency to experience unpleasant and disturbing emotions, the tendency towards anxiety in thoughts and actions (Smederevac et al., 2010). *Extraversion* determines the number of interpersonal relations with which the person feels relaxed (Smederevac et al., 2010). *Conscientiousness* is the dimension of individual differences that refers to the attitude towards duties, and the number of goals on which someone is focused and the self-control, systematism and persistence in their achievement (Smederevac, 2002). *Aggressiveness* is a dimension that represents individual differences in frequency and intensity of aggressive impulses, and the differences in control and intensity of the aggressive reaction (Smederevac et al., 2010). *Openness to experience* refers to acceptance of new ideas, approaches and experiences. This dimension encompasses intellectual curiosity, wide circle of interests and openness to changes (Smederevac et al.,

2010). *Positive valence* is the dimension of self-evaluation with a positive attitude towards oneself and a positive evaluation of the self (Smederevac et al., 2010). *Negative valence* is the dimension of self-evaluation with a negative attitude towards oneself and negative evaluation of the self (Smederevac et al., 2010).

Recognizing the shortcomings of some instrument through its application, either in methodological sense or because of the lack of the possibility of explanation of certain behavior varieties, leads to the researches that could aim to extend the unique area of personality and the number of factors which would more thoroughly explain how the personality functions.

Principally, there is no definite solution of the dilemma whether the optimal solution is the existence of five, six, seven or more factors, since there are those in favor and against of each model. The fact is that the models refer to different approaches in the selection of the initial scope of terms and the formation of parameters. On the other hand, the worth of a certain construct, or in this case the potential extension of the number of factors, is measured by its usefulness which can be confirmed by new, additional and repeated researches.

The research conducted in our region has shown satisfying validity of HEXACO model and convergent validity with VP+2 and the Big five models (Međedović et al, 2019). Factor structure of models has been confirmed, while Extraversion, Openness to experience and Conscientiousness are highly correlated with their alternatives in VP+2 and the Big five models. Honesty-Humility has the biggest correlation with Negative Valence (VP+2), Emotionality with Neuroticism (the Big five) and Pleasantness with Aggressiveness (VP+2) and Pleasantness (the Big five).

Therefore, one of the problems of this research comes down to the empirical testing of the two instruments of HEXACO and VP+2 models. The other deals with the applicability of these instruments in the clinical context.

One of the most challenging questions for studies that deal with the quality of the relationship between personality traits and mental disorders is whether certain personality traits present predispositions for certain disorders (or they come from them), and on the other hand, whether mental disorders present extreme forms of otherwise normal personality traits.

Traditional division into normal and abnormal psychology lead the researchers towards conclusion that instruments designed for measuring personality traits of the general population are not suitable for clinical evaluation. Costa and McCrae (1992) in their work explain that it does not have to be the case for two reasons – the first reason is that there are overlaps, since a certain number from the non-clinical population upon the systematic evaluation would be diagnosed with some disorder, while on the other hand, people from clinical population can show good adaptation in facing situation stressors. The second reason is that many personality aspects are relatively unaffected by psychopathology. For example, the presence of anxious disorder does not have to influence someone's intellectual curiosity or the desire for achievement. However, two main questions stand out – the question of the validity of the testing due to the defensiveness and

socially desirable answering, and the effects of the psychopathology on the scores of the personality traits tests (Costa & McCrea, 1992). Classical personality traits tests, compared to many clinical tests, do not have the scales for measuring defensiveness, sociable desirability and false presentation, which is often stated as a reason why not to apply them to clinical population. Also, answering personality traits tests is based on the self-image, which is often distorted with the people from the clinical population, going from delusional to grandiose, bizarre images of the self. The mood swings, that are sometimes extreme with certain clinical groups, influence the self-presentation. One study, which dealt with the question if and in what degree depression distorted the evaluation of personality traits, showed that in mood swings within depressive disorder, the scores of the personality test also change (Costa et al, 2005). The more intense the depressive episode is, the more pronounced neuroticism and more diminished extraversion, pleasantness and conscientiousness are. The limitation of such studies is that it is not known what the profile of the personality had been like, and whether these are residual effects of the previous depressive episode.

What do the empirical findings say? The studies show that the majority of psychopathology dimensions have parallels in individual differences of the normal range. The research of the relation between NEO-PI-R facets of the questionnaire and the two most widely used clinical instruments – MMPI and MCMI – shows that the majority of the scales is connected to Neuroticism and Extraversion (Costa & McCrea, 1992).

In the research that investigated the level of overlapping of maladaptive traits present in personality disorder and the Big five model, significant convergence has been found (Thomas et al, 2013). The group of researchers that deal with personality disorders, have suggesting that DSM-V criteria for diagnosing personality disorders should be based on certain maladaptive traits. Initially, 37 maladaptive traits have been described, and five factors of the higher level have been separated (Krueger et al, 2011): negative affectivity (emotional instability, anxiety), alienation (retreat, anhedonia), antagonism (manipulation, deceitfulness), disinhibition (impulsiveness, irresponsibility) and psychoticism (eccentricity, unusual beliefs). The structure of maladaptive personality traits, suggested for DSM-V, has a clear similarity with the structure of personality traits in non-clinical population. Precisely, DSM-V negative affectivity is connected with Neuroticism from the Big five, DSM-V alienation with low Extraversion, antagonism with low Pleasantness, disinhibition with low Conscientiousness, and psychoticism with Openness to experience. This finding argues that it is possible to relate personality traits from the non-clinical population, to the traits from the psycho-pathology spectrum (Thomas et al, 2013).

In the clinical context, personality traits can be used in classification and systematization of only limited number of psychiatric diagnoses. Neuroticism is a risk factor for depression and anxiety, and introversion together with neuroticism increases the risk of developing depression (Revelle, 1995). The distress in

interpersonal problems can occur because of low Emotional stability, Extraversion and Pleasantness (Gurtman, 1994, according to Revelle, 1995). Negative and Positive valence from VP+2 have proved to be significant predictors of personality disorder (Smederevac et al, 2010).

Our question about HEXACO and VP+2 is whether one of these two models has potentially better predisposition for application on clinical population, and if so, which of the two. We were interested in whether these models have discriminative power compared to different clinical subgroups.

Research goals

The main goal of the research is to determine the relation between HEXACO and VP+2 models. In accordance with the main goal of the research, specific goals are formed, which deal with determination of the reliability of instruments, inter-correlations between basic dimensions of the used instruments and the discriminative potential of HEXACO and VP+2 models in distinguishing the healthy, neurotic and psychotic respondents.

Method

Instruments

HEXACO questionnaire made by Ashton and Lee (Ashton & Lee, 2007) has been used for evaluation of the six-dimension personality model. The questionnaire consists of 100 items in the form of five-point Likert scale. The instrument measure the following dimensions: Emotionality, Honesty, Extraversion, Cooperation, Conscientiousness and Openness.

For evaluation of the seven basic personality dimensions the *Big five plus two* model, made by Smederevac, Mitrović and Čolović (2010), has been used. It was created by lexical personality descriptions in the Serbian language. The questionnaire consists of 184 items and the five-point Likert scale. The instruments measure the following dimensions: Neuroticism, Extraversion, Conscientiousness, Aggressiveness, Openness to experience, Positive and Negative valence.

Demographic characteristics questionnaire consisted of questions related to age, gender and education.

Type and structure of the sample

The sample was adequate and it consisted of 150 respondents (50 respondents with the diagnoses of schizophrenia and schizoaffective disorder, where the diagnoses were confirmed by minimum two ordinarii, 50 respondents with the diagnoses of anxiety/depressive disorder and 50 respondents of non-clinical population). In the whole sample there were 90 women (60%) and 60 men

(40%). The average age of the respondents was 39.88 years (SD=10.21), ranging from 21 to 60 years. The average number of completed school years as a measure of education degree was 13.91 years (SD= 2.73), ranging from 8 to 23 years.

Statistical data processing

For investigating reliability of the said questionnaires, Cronbach's alpha coefficient was used. For determining the relations between basic personality dimensions of the said models, Pearson's correlation coefficient was used. For determining discriminative potential of HEXACO and VP+2 models in distinguishing psychotic, neurotic and healthy respondents, canonical discriminant analysis was used.

Research procedure

The research was conducted in cooperation with outpatients of the Center for Mental Health of the Community Health Center Zvornik. Prior to fulfilling the questionnaire, the respondents were introduced with the subject and goal of this research and they got the main instructions for the activities. The respondents were told that the research was completely anonymous, and that the results would only be used for research purposes. Time needed for fulfilling the questionnaire was not predicted. The research was done from May 2017 to April 2018.

Results of the research

The results have shown that the reliability coefficients of HEXACO inventory scales are lower in comparison to the data compiled in the normative sample. In this research, the results show that two scales of HEXACO questionnaire have a satisfying reliability; those are Agreeableness scale ($\alpha=0.724$) and Extraversion scale ($\alpha=0.708$). Other scales are below the limits of acceptable reliability ($\alpha=0.70$). In this researches done by Ashton and Lee (Ashton & Lee, 2007; Lee & Ashton, 2004) good reliability of HEXACO inventory was determined, ranging from $\alpha=0.89$ to $\alpha=0.92$.

Table 1. *Reliability of HEXACO questionnaire scales*

Scales	Cronbach's α coefficient
Agreeableness	0.724
Extraversion	0.708
Openness to experience	0.662
Conscientiousness	0.648
Honesty	0.502
Emotionality	0.472

It was determined that the questionnaire VP+2 in comparison to HEXACO model has better reliability on this sample of respondents. Out of seven VP+2 scales, six scales have acceptable reliability. Negative valence scale ($\alpha=0.647$) is below the limit of acceptable reliability ($\alpha=0.70$). The highest reliability was found

by Neuroticism dimension ($\alpha=0.877$), which is in accordance with the research conducted by Smederevac (2010).

Table 2. *Reliability of the scales of VP+2 questionnaire*

Scales	Cronbach's α coefficient
Neuroticism	0.877
Conscientiousness	0.800
Aggressiveness	0.800
Extraversion	0.765
Openness to experience	0.755
Positive valence	0.752
Negative valence	0.647

Application of Pearson's coefficient of correlation has led to the relation between two models of basic personality dimensions. The inter-correlations achieved show that these inventories describe conceptually similar things, and that there are overlaps of the content of these two models, with certain specificity of each of them. The results have shown that there is the biggest overlapping of the content of the dimensions of both inventories in Extraversion, Conscientiousness and Openness to experience, which is saying that they measure conceptually similar things. Negative correlation of Aggressiveness with Honesty and Aggressiveness was determined, the constructs that could represent the two poles of the same dimension. Correlation between Extraversion (HEXACO) and Openness (VP+2) can be explained by the fact that both dimensions describe the area of interpersonal behavior. Negative valence dimension is correlated with all the dimensions of HEXACO model, while Positive valence correlates with Honesty, Extraversion, Conscientiousness and Openness. Neuroticism and Emotiveness are in statistically significant correlation.

Dimensions of Honesty (HEXACO) and Extraversion, Openness and Conscientiousness (VP+2) are independent constructs. This proves the specific determination of these dimensions within each model. The determined relations between dimensions of Agreeableness (HEXACO) and Openness, Conscientiousness, Extraversion and Positive valence (VP+2), show that there is no similarity in the content that they are measuring, and that they are independent constructs. Even though the contents of the dimension of Extraversion from HEXACO and VP+2 models overlap, Extraversion (HEXACO) does not correlate with only one dimension of VP+2 model, while Extraversion (VP+2) correlates with half of the dimensions of HEXACO model.

Table 3. *Inter-correlations of basic personality dimensions of HEXACO and VP+2 models (Pearson's coefficient)*

		HEXACO					
		Emotiveness	Honesty	Extraversion	Agreeableness	Conscientiousness	Openness
VP+2	Neuroticism	0.384**	-0.160	-0.576**	-0.241**	-0.372**	-0.344**
	Extraversion	-0.036	-0.007	0.751**	0.151	0.332**	0.366**
	Aggressiveness	0.173*	-0.400**	-0.045	-0.591**	-0.295**	-0.147
	Openness	-0.152	-0.060	0.570**	0.006	0.359**	0.551**
	Conscientiousness	-0.258**	-0.029	0.359**	0.133	0.623**	0.206*
	Positive valence	-0.125	-0.324**	0.503**	0.009	0.369**	0.206*
	Negative valence	0.197*	-0.361**	-0.323**	-0.229**	-0.360**	-0.281**

** Correlation is statistically significant on the level $p \leq 0.01$

* Correlation is statistically significant on the level $p \leq 0.05$

By applying canonical discriminative analysis, discriminative potential of the measures of each instrument was investigated, on the level of basic, assumed dimensions, in order to study their contribution in distinguishing healthy, neurotic and psychotic people.

As for the discriminative potential of HEXACO dimensions, the study has shown that four out of six dimensions are statistically significant in distinguishing the studied groups. Agreeableness and Honesty have shown not to have the potential to systematically distinguish the studied groups of respondents in this research. One statistically significant discriminative function has been isolated, distinguishing the groups with the coefficient of canonical correlation $R=0.490$ ($p < 0.001$).

Table 4. *F tests of the significance of the differences in HEXACO domains*

Domain	F	df1	df2	p
Agreeableness	6.334	2	147	0.002**
Extraversion	13.208	2	147	0.000***
Openness to experience	0.312	2	147	0.732
Conscientiousness	4.535	2	147	0.012*
Honesty	8.552	2	147	0.000***
Emotiveness	0.056	2	147	0.946

***The difference is statistically significant on the level $p \leq 0.001$

** The difference is statistically significant on the level $p \leq 0.01$

* The difference is statistically significant on the level $p \leq 0.05$

In linear coordination of measures, three personality dimensions stand out, according to the correlation they have with discriminative function: Extraversion, Openness and Emotiveness. This composition consists of forcefulness, flexibility, openness, emotional stability, and it could represent the composition of "mental health"

Table 5. Matrix of the discriminative function structure of HEXACO dimensions

Domain	Domain value
Extraversion	0.753*
Openness to experience	0.586*
Emotiveness	-0.522*
Conscientiousness	0.367
Agreeableness	0.105
Honesty	0.028

* The difference is statistically significant on the level $p \leq 0.05$

The overall accuracy of the classification of the respondents into the groups of healthy, neurotic and psychotic respondents, based on the profiles of discriminative coordination of basic dimensions is 59.3%. It can be said that the successfulness of this coordination of compositions is bad, and that it has low specificity, because it puts 40% of respondents into the wrong category. The biggest percentage of successfulness is shown among neurotic respondents, and it can be said that HEXACO model is good for the detection of anxious and depressive individuals, but not so good for identifying psychotic pathology. It is non-discriminative for psychotic pathology.

It has been determined that the respondents of all three groups systematically differ in the expression of all scales in VP+2 model. The measures of these dimensions make two discriminative functions that in a statistically significant way distinguish the groups, with the coefficient of canonical correlation $R=0.682$ ($p < 0.000$) for the first discriminative function and for the second with the coefficient of canonical correlation $R=0.385$ ($p < 0.001$).

Table 6. F tests of significance of differences on VP+2 domains

Domain	F	df1	df2	p
Neuroticism	46.647	2	147	0.000***
Extraversion	12.286	2	147	0.000***
Aggressiveness	3.378	2	147	0.037*
Openness to experience	29.504	2	147	0.000***
Conscientiousness	4.215	2	147	0.017*
Positive valence	8.503	2	147	0.000***
Negative valence	5.580	2	147	0.005**

*** The difference is statistically significant on the level $p \leq 0.001$

** The difference is statistically significant on the level $p \leq 0.01$

* The difference is statistically significant on the level $p \leq 0.05$

In linear coordination of measures, four personality dimensions stand out, defining the first function (Neuroticism, Openness to experience, Extraversion, and Negative valence), and three dimensions defining the second function (Positive valence, Aggressiveness and Conscientiousness).

Table 7. Matrix of the discriminative function structure of VP+2 dimensions

Domain	Domain value	
	First	Second
Neuroticism	0.853*	0.123
Openness to experience	-0.636*	0.538
Extraversion	-0.406*	0.361
Negative valence	0.291*	-0.120
Positive valence	-0.272	0.543*
Aggressiveness	0.163	-0.363*
Conscientiousness	-0.212	0.324*

* The difference is statistically significant on the level $p \leq 0.05$

The composition of scales, which makes the first discriminative function, gives the impression that the psychotic are healthier than the neurotic. However, more probable conclusion says that this composition distinguishes the groups of psychotic from neurotic, on the basis of absence of the specificity of the neurotic on the psychotic side. This composition presents the measure of emotional instability, which is the characteristic of the respondents with the pathology of neurotic level and which is bad for identifying psychotic pathology.

In the successfulness evaluation of the prediction of accuracy in belonging to groups, it is evident that VP+2 model has 10% better successfulness compared to HEXACO. This model successfully recognizes and accurately classifies about 1/2 of psychotic respondents. In comparison to neurotic respondents, it shows almost the same successfulness.

Discussion and conclusion

The research has been conducted with the goal to determine the relation between HEXACO and VP+2 models of basic personality dimensions. Reliability of instrument scales have also been investigated, as have been the inter-correlations between basic dimensions of the used instruments and the discriminative potential of HEXACO and VP+2 models in distinguishing healthy, neurotic and psychotic respondents. The results have partly confirmed the initial assumptions of the research.

When we compare psychometric characteristics of the two instruments, obtained on our sample, it has been determined that VP+2 questionnaire possesses better metric characteristics: better reliability of scales, bigger discriminative potential of all scales and therefore better successfulness in distinguishing healthy, neurotic and psychotic respondents. HEXACO and VP+2 models have shown that the structure of compositions, and that what makes the groups of respondents differ, is basically a part of neurotic spectrum, or primarily emotional instability. In addition to this, the first discriminative functions in both instruments

are Emotiveness, Neuroticism, Openness and Extraversion, plus Negative valence in the composition of model VP+2, whose share is small in the structure of this composition. Therefore it can be said that both instruments are sufficiently good for the detection of anxiety and depression disorders, which is in accordance with earlier researches (Costa et al, 2005; Thomas et al, 2013).

When we look at psychometric characteristics of the instruments individually, reliability for all subscales is not confirmed, using stricter criterion for reliability. According to some authors, 0.70 cut-off score is often unjustified, and acceptable value can depend on the used test and interpretation (Schmitt, 1996). Therefore, relatively low 0.50 criterion for Cronbach's alpha does not have to seriously harm coefficient values. Owing to the non-homogeneous sample of our research, in which one part consisted of respondents from clinical population, with their specifics during the testing, we think that lower criterion for reliability could be taken into consideration.

Inter-correlations of basic personality dimensions of HEXACO and VP+2 models suggest that there are certain overlaps of content of Extraversion, Openness and Conscientious, and it can be assumed that they measure conceptually similar things. This is in accordance with the research conducted in our region, by Međedović and associates (2019), which confirms that Extraversion, Openness to experience and Conscientiousness are highly correlated to their alternatives in VP+2 and the Big five models, and also in accordance with theoretical assumptions and empirical findings of HEXACO model (Ashton et al, 2014). On the other hand, the determined "nature" (intensity, direction) of other correlations is insufficient for potential questioning of the specificity of each dimension in the observed models. The traits, markers that saturate Honesty dimension, are on the negative pole of Aggressiveness, Positive valence and Negative valence, which could be the basis for future testing of the validity of these three dimensions in VP+2 model on the account of one – Honesty dimension of HEXACO model. It has been determined that Negative valence correlates with all other dimensions of both instruments, which can be useful for its potential prediction, owing to the fact that it can be treated, by the direction of correlation, as an indicator of pathology. Certain inter-correlations within VP+2 model are "very high", which implies potential conceptual overlapping of the assumed basic personality dimensions, which this instrument is measuring.

The findings show that Neuroticism and Emotionality dimensions are in statistically significant positive correlation. This finding is in accordance with the research done by Međedović and associates (2019), even though the results show that Emotionality does not have strong correlation with any of the dimensions of VP+2 model, its correlation with Neuroticism is higher than other traits from VP+2.

Both instruments have proved bad when it comes to the detection of psychotic pathology, and they are non-discriminatory for psychotic pathology. This research has confirmed the existence of separate regulatory mechanism, which is in the basis of integrity/disintegrity of mental processes. Personality domain of

HEXACO and VP+2 is insufficiently wide to explain the varieties of the disturbed behavior that describe and define serious mental disorders. In the description and definition of serious mental disorders, it can primarily be spoken from the context of the degree of expression of the dimensions in these two models, in terms of their extreme modularity and assumed basic personality structure of these two models. Our results speak in favor of the opinion that in clinical assumption, the best way is to use instruments intended for clinical population, given that none of the applied instruments in our research, standardized on the general population, was of any use in distinguishing clinical from non-clinical population. This finding says that with the growth of the "weight" of the symptom and with transition into disorder, the usefulness of the instruments for psychological evaluation is being diminished. Researches that related personality traits to psycho-pathological symptoms and mental disorders, usually determined relationship with disorders from neurotic domain, such as non-clinical depression and anxiety (Revelle, 1995) and personality disorder (Thomas et al, 2013; Smederevac et al, 2010).

Generally, the research has confirmed that HEXACO and VP+2 are useful and valid in as instruments measuring personality traits even in one part of clinical population which does not include people with psychotic disorders.

References

- Ashton, M. C., & Lee, K. (2002). Six independent factors of personality variation: A response to Saucier. *European Journal of Personality*, 16(1), 63-75.
- Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality structure. *Personality and social psychology review*, 11(2), 150-166.
- Ashton, M.C., Lee, K., & DeVries, R.E. (2014). The HEXACO Honesty-Humility, Agreeableness, and Emotionality factors: A review of research and theory. *Personality and Social Psychology Review*, 18(2), 139-152.
- Čolović, P., Mitrović, D., & Smederevac, S. (2005). Evaluation of Big Five model in Serbian culture by FIBI questionnaire. *Psihologija*, 38(1), 55-76.
- Costa Jr, P. T., & McCrae, R. R. (1990). Personality disorders and the five-factor model of personality. *Journal of personality disorders*, 4(4), 362-371.
- Costa Jr, P. T., Bagby, R. M., Herbst, J. H., & McCrae, R. R. (2005). Personality self-reports are concurrently reliable and valid during acute depressive episodes. *Journal of affective disorders*, 89(1-3), 45-55.
- Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological assessment*, 4(1), 5.
- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. G. (2006). The international personality item pool and the future of public-domain personality measures. *Journal of Research in personality*, 40(1), 84-96.

- Krueger, R. F., Eaton, N. R., Clark, L. A., Watson, D., Markon, K. E., Derringer, J., ... & Livesley, W. J. (2011). Deriving an empirical structure of personality pathology for DSM-5. *Journal of Personality Disorders, 25*(2), 170-191.
- Lee, K., & Ashton, M. C. (2004). Psychometric properties of the HEXACO personality inventory. *Multivariate behavioral research, 39*(2), 329-358.
- Međedović, J., Čolović, P., Dinić, B. M., & Smederevac, S. (2019). The HEXACO Personality Inventory: Validation and psychometric properties in the Serbian language. *Journal of personality assessment, 101*(1), 25-31.
- Mitrović, D., & Smederevac, S. (2007). Konstruktna validnost multidimenzionalnog upitnika ličnosti (MPQ). *Psihologija, 40*(2), 211-228.
- Revelle, W. (1995). Personality processes. *Annual review of psychology, 46*(1), 295-328.
- Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological assessment, 8*(4), 350.
- Smederevac i Mitrović, 2006: S. Smederevac i D. Mitrović, *Ličnost – metodi i modeli*. Beograd: Centar za primenjenu psihologiju.
- Smederevac, S. (2002). *Govor i ličnost ili govor ličnosti*. Zadužbina Andrejević.
- Smederevac, S., & Mitrović, D. (2006). Psihobiološki pristup: Hans Ajzenk – PEN model. *Ličnost - metodi i modeli* (pp 196-204). Beograd: Centar za primenjenu psihologiju.
- Smederevac, S., Mitrović, D., & Čolović, P. (2010). Velikih pet plus dva: Primena i interpretacija [Big Five Plus Two: Manual for administration and interpretation]. *Beograd, Serbia: Centar za primenjenu psihologiju*.
- Stelmack, R. M. (2004). *On the psychobiology of personality*. Amsterdam: Elsevier.
- Thomas, K. M., Yalch, M. M., Krueger, R. F., Wright, A. G., Markon, K. E., & Hopwood, C. J. (2013). The convergent structure of DSM-5 personality trait facets and five-factor model trait domains. *Assessment, 20*(3), 308-311.

Marina Novaković

Dom zdravlja Zvornik, Republika Srpska

ISPITIVANJE RELACIJA DVA MODELA LIČNOSTI NA KLINIČKOJ POPULACIJI (HEXACO I VP + 2)

Sažetak

U radu je prikazano istraživanje usmereno na ispitivanje relacija između dva modela bazičnih crta ličnosti na kliničkoj populaciji (HEXACO i VP+2). Konkretnije, ciljevi su bili da se utvrdi pouzdanost instrumenata, interkorelacija između bazičnih dimenzija korišćenih instrumenata i diskriminativni potencijal HEXACO i VP+2 u razlikovanju zdravih, neurotičnih i psihotičnih ispitanika. Istraživanje je sprovedeno na uzorku od 150 ispitanika, podeljenih u tri poduzorka, 50 „psihotičnih“, 50 „neurotičnih“ i 50 „zdravih ispitanika“. Na uzorku su primenjeni inventari HEXACO (Ashton & Lee, 2007) i Velikih pet plus dva - VP+2 (Smederevac, Mitrović & Čolović,

2010). Pouzdanost je ispitivana metodom interne konzistencije. Utvrđeno je da Upitnik VP+2 u poređenju sa HEXACO modelom ima veći stepen pouzdanosti. Upitnik HEXACO ima zadovoljavajuću pouzdanost za skale Saradljivost ($\alpha=0,724$) i Ekstraverzija ($\alpha=0,708$), dok su ostale skale ispod granica prihvatljive pouzdanosti. Od sedam skala Upitnika VP+2, šest skala je prihvatljive pouzdanosti, a najveću ima dimenzija Neuroticizma ($\alpha=0,877$). Analizom interkorelacija rezultati su pokazali da najveće preklapanje sadržaja dimenzija oba inventara, imaju dimenzije Ekstraverzije, Savesnosti i Otvorenosti. Utvrđena je negativna povezanost Agresivnosti sa Poštenjem i Saradljivošću. Dimenzija Negativne valence je povezana sa svim dimenzijama HEXACO modela, dok je dimenzija Pozitivne valence u korelaciji sa Poštenjem, Ekstraverzijom, Savesnošću i Otvorenošću. Dimenzije Neuroticizma i Emocionalnosti su u statistički značajnoj pozitivnoj korelaciji. U oceni uspešnosti tačnosti predviđanja pripadnosti grupi, pokazalo se da VP+2 model ima za 10% bolju uspešnost u odnosu na HEXACO. Rezultati su u skladu sa istraživanjima odnosa modela HEXACO i VP+2.

Ključne reči: crte ličnosti, HEXACO model, Velikih pet plus dva model, klinička populacija.

THE RELATIONSHIP BETWEEN SCRIPT INJUNCTIONS, LIFE POSITIONS AND DEFENSE MECHANISMS WITH PEOPLE WITH SCHIZOPHRENIA

Abstract

Defense mechanisms are an integral part of the functioning of the ego states. Relying on the concepts of Transactional analysis, we were interested in finding if there was a link between script injunctions, life positions and defense mechanisms of people with schizophrenia. In particular, the aim was to examine the correlation between script injunctions and defense mechanisms and life positions and defense mechanisms of people with schizophrenia. The research involved 42 respondents with diagnosis of schizophrenia. Instruments used: the Script Injunctions Scale (Gavrilov-Jerković et al., 2010), the Life Positions Scale (Boholst, 2002) and the Life Style Index (Conte & Apter, 1995). In the first phase of the analysis, it turned out that nine of the twelve script injunctions reach the malignant level (T-score greater than 70) - "Don't be," "Don't be you," "Don't be a child," "Don't be important," "Don't belong," "Don't be close," "Don't be healthy," "Don't think" and "Don't feel". The results show that the Intellectualization and Negation from the Life style scale, achieve the highest correlation and are statistically significantly related to all variables of the Script injunctions scale. All correlations are negative and range from $r = -0.381$ to $r = -0.733$ ($p < 0.01$). The results of the correlation analysis show that life positions ("I'm OK - You are OK", "I'm OK - You Are Not OK", "I'm Not OK - You are OK" and "I'm Not OK - You Are Not OK") achieve a connection of different intensity and in different directions with the mechanisms of defense as discussed in the paper. The obtained connections point to the importance of further investigation of the relationship of defense mechanisms, life positions and script injunctions of people with schizophrenia and recognizing of possible causal connections.

Key words: schizophrenia, script injunctions, defense mechanisms, life positions

Introduction

Defense mechanisms

According to majority of the definitions, defense mechanisms represent inborn, involuntary and regulatory processes which enable decrease of

¹ corresponding author nenasok@yahoo.com

² corresponding author novakovicmarina@gmail.com

cognitive dissonance and minimization of sudden changes in inside and outside environment, by changing perception of certain events (Vaillant, 1971). They change our perception of either the subject (self), the object (other), the idea or the feeling.

According to the researchers in this area, the concepts of defense mechanisms and defense organization present the central part in understanding ego-development and psychopathology (Valliant, 1971). They came into focus of investigation after Freud's observations and since then, their status in academic psychology has been volatile. The main problem is operationalization and measuring method of unconscious processes by using self-reporting questionnaire.

Bond and associates (1983) compiled a questionnaire for measuring defense mechanisms, indirectly, by self-reporting, which is considered to be related to unconscious mechanisms. Four factors have been isolated, which have been named defense styles – maladaptive style, distortion of reality, self-sacrifice and adaptive style. Significant positive relation between self-reporting defense styles of this questionnaire and clinical evaluation of defense mechanisms through interview has been obtained. Maladaptive styles have correlated with immature defense mechanisms obtained through evaluation and with low scores on the scale which measures general mental functioning (Health-Sickness Rating Scale), while the stability of these defense styles, measured after six months, has been confirmed (Bond 1989).

The finding of Bond and Vaillant (1986) is also interesting. They empirically checked the correlation of psychiatric diagnosis with defense styles. The patient's certain defense style was compared to his diagnosis. Significant correlation has been found between defense style and only one diagnosis - major affective disorder. It has been shown that recouring to certain defense style cannot predict diagnosis and vice versa, thus diagnoses and defense mechanisms are separate dimensions. We can say that defense mechanisms present the reflection of ego-functioning and the level of human development, thus they are not necessarily connected to the diagnosis. The level of person's development has proved compatible with the level in hierarchy of defense mechanisms which it occupies.

Research results, obtained on the basis of Plutchik's emotion theory, show that defense mechanisms are connected with the specific affective conditions, and that they are the derivatives of emotions (Plutchik et al, 1979). For example Displacement is connected with fury and aggression, Compensation is connected with sadness and depression, and Denial with hysteric patterns of personality (Endersen, 1991). In addition, it has been proved that persons with schizophrenia use all defense mechanisms more intensively compared to typical population, and anxious persons use Regression, Compensation, Projection and Displacement, while people with high self-esteem least use defense mechanisms (Plutchik et al., 1979). Other studies have shown that depressed patients more use immature defense mechanisms than the rest of the population (Conte & Apter, 1995). These

results find their foundation in cross-cultural studies, and also, high test-retest correlations have been achieved (Enderson, 1991).

Within social psychology, certain aspects of defense mechanisms have been confirmed under different concepts, such as unrealistic self-illusions, cognitive dissonance, positive illusions, false consensus effect (Cramer, 2000), and within cognitive psychology through concepts of subliminal perception and activation, selective attention, implicit memory, biased memory (Greenwald, 1992). One of the most important questions in terms of unconscious cognition is the question whether it is under the influence of higher levels of analysis. For example, psychoanalytical theory specifically stresses that unconscious cognition uses sophisticated cognitive defenses and smartly manages the complex structure of suppressed knowledge. There is a huge number of findings showing that unconscious information influences conscious memory and task execution (Cramer, 2000). Automatic processes have been determined through existence of separate neural networks which are in charge of their processing (Greenwald, 1992). Merikle and associates (2001) sum up the decades old findings of studying perception beyond consciousness, and they conclude with high reliability that information can be perceived even though there is no consciousness about perception. They suggest that the information acquired in this way can influence consciousness in two ways – firstly, by choosing which next stimuli will be processed, and secondly, by determining how these stimuli will be consciously experienced.

Since we make conclusions about defense mechanisms indirectly, via behavioral indicators, communication contents and nonverbal gestures, there is controversy about the number and types of mechanisms, as well as the conceptual differences from some other concepts, like strategies of stress management. Valliant (1993) establishes the hierarchy of defense mechanisms and divides them into four categories: 1) psychotic mechanisms (delusional projections, denial and distortion); 2) immature mechanisms (projection, schizoid fantasy, hypochondria, passive-aggressive behavior, acting-out and dissociation); 3) neurotic mechanisms (isolation/ intellectualization, repression, displacement and reaction formation); 4) mature mechanisms (altruism, suppression, anticipation, sublimation and humor) (Hentschel et al., 2004). On the lowest level, mechanisms distort reality, while on the highest level they contribute to the integration of personality and feelings and interpersonal relations. Hierarchical division of defense mechanisms into immature, neurotic and mature has its empirical basis due to the correlation with mental health (Vaillant, 1992). It is important to stress that the status of defense mechanisms can be volatile – some of them, like projection, splitting and acting out are almost always immature and therefore nonadaptive, while some others, like suppression or negation can be both adaptive and nonadaptive, depending on their frequency, flexibility, and context in which they occur (Džamonja-Ignjatović, 2014).

There is no consensus on the number of defense mechanisms. Ana Freud compiled a detailed list of these mechanisms in 1936, and researchers still refer

to it today. This number usually includes between 10 and 30 mechanisms (Ana Freud, Bond et al, 1983; Vaillant, 1992).

Understanding defense mechanisms has important clinical implications, since it determines psychosocial maturity and the level of person's development, and influences the evaluation of a person's potential for recovery after certain mental disorder, and can be potentially used in predication of the type of the treatment that will be most adequate.

Life positions and script injunctions

Transactional analysis offers us one of personality theories and a specific approach to psychotherapy, as well as an important model of psycho-pathology. As an introduction for definition of life positions and script injunctions from the perspective of transactional analysis, we shall look back at the concept of life script.

Life script represents unconscious life plan made in childhood which later influences our life outcomes. People have a tendency to distort reality in order to justify their script, and to selectively fit many things into that oldest decision about what their life would be like. Life positions influence that script.

Life positions are positions that a person takes when it comes to the main values they ascribe to themselves and to others (Stewart & Joines, 1987). They are adopted in childhood, even though there is no firm, agreed answer to the questions of how and at what age. While forming these main positions, depending on what kind of message he or she got, a person could conclude: "I am smart", "I am stupid", "I am as good as everybody else", "I am rude" etc. Also for other people, positions can be: "people cannot be trusted", "people are lovely", "world is a cruel place", "everybody takes care only about themselves" etc. (James & Jong ward, 1971). These beliefs can be summed up in four life positions: "I am OK – You are OK", "I am not OK – You are OK", "I am OK – You are not OK", "I am not OK – You are not OK". Once the life position is adopted, the child will likely construct the rest of the script in such a way to fit in it.

"I am OK – You are OK" is a healthy position. People with this position solve problems in constructive way. They are optimistic and have healthy approach to life, they are free in relationships with others (Woollams et al., 1976), they are aware of their own and other people's qualities, and they therefore possess self-respect and respect for others (Milivojević, 2004c). It is important that the evaluation I + You is based on reality (it should not be ideological or religious axiom which is never questioned).

"I am OK – You are not OK" is a position which is formed when a person overvalues himself or herself, or when he or she undervalues others. People with such a position are marked arrogant and antisocial (Boholst, 2002); they behave disparagingly, use contempt and humiliation. They are very sensitive to criticism, and in occasions of strong affect, they can use physical violence, which can, in the worst scenario, lead to murder. In best case – they interfere in everything in the

way »I am better than you« and they try to persuade others to change (Boholst, 2002). Clinically, this is a position of paranoid and narcissistic people (McFarren, 1998).

„I am not OK – You are OK“ is a depressed position. These are the people who live according to the principle „if only“ and „I should have“ and they humiliate themselves (Hunt-Couhn, 1994, according to Boholst, 2002). This position is an existential basis for the feeling of shame. Persons with this position feel stupid, inferior, pathetic, and inadequate (Woollams et al., 1976), and feelings of shame, anxiety, depression and self-hatred prevail (Milivojević, 2004c).

„I am not OK – You are not OK“ is the position of general worthlessness and it comes with people who lose interest for living. Clinically, these people behave in schizoid and schizophrenic way (Boholst, 2002). This position is taken by children who had suffered abuse and traumatic experiences. As all aspects of script, life position can also be changed. That usually happens after an insight into script, after psychotherapy, or upon some strong life experience (Stewart & Joines, 1987).

Child makes a life script based on the chain of decisions, as an answer to messages which he or she got, mostly from parents. These decisions can be in the form of permissions and injunctions. Bern (1972) defined script injunctions as repeating and traumatic early parental messages that lead to chronic dysfunction in all life aspects. Injunctions are considered to limit child's free growth and development and to make his or her life much harder (Lammers, 1994). According to Goulding & Goulding (1979), injunctions shall influence the formation of script only if the individual recognizes them as important and valuable. In other words, even then, a child does not have to be a passive receiver of outer stimulations.

Many researches have shown that people with mental disorders have more pronounced script injunctions and also a big number of script injunctions to which they were faced. (Ernst, 1971; Steiner, 1974; Budiša et al., 2012; Crea, 2014). In the research conducted by Budiša and his associates (2012), it has been shown that the clinical group has significantly higher scores on all script injunctions, compared to the non-clinical population.

Today, fundamental pathobiology of schizophrenia remains unattainable, despite the existence of complex models from the domain of neuro-sciences, brain pathology, genetics, neuro-psychology and epigenetics. During the last two decades, there has been a number of evidence emphasizing social and psychological factors (stressful life events, ethnicity, traumatic events from childhood etc.), as closely related to the biology of schizophrenia (Morgan & Fisher, 2007). Therefore, including social and psychological factors into schizophrenia explanation, opens up the whole space for theory and practice of many psychotherapeutic directions in the clinical context, and thereby also transactional analysis.

Bern in his early works explained the development of schizophrenia by using the splitting mechanism, and then later he referred more to the exclusion mechanism.

Exclusion manifests when a person excludes one or more of their ego conditions, which has a specific dynamics with the people suffering from schizophrenia. With this concept, Bern accepted various psychodynamic processes such as splitting, dissociation, denial, isolation, retreat and repression, in order to explain the structural pathology of schizophrenia and various psychotic symptoms (Mellacqua, 2014).

Schiff (1975) offers the explanation of the process of exclusion of ego condition via her structural model of psychoses within the theory of the conflict of the personality (Mellacqua, 2014). According to her, schizophrenia presents a closed system of messages in the ego condition of the Parent, appropriate adaptation in the Child and the Adult who is uninformed. Therefore, the focus is on the dictatorial role of the Parent and the hyper-adaptation of the Child, which lead to pervasive unfunctional testing of the reality by the Adult, with people with psychosis (via writing off and redefinition). She researches specific communication and psychodynamic patterns in schizophrenia, which imply symbiotic relationship with the significant person, passivity, as a behavioral manifestation of this dependent relationship, sustained by writing off, specific referential framework, due to the absence of realistic limits, and redefining by which a person sustains this referential framework and achieves their life script, which is marked with unresolved aspects of primary symbiosis. In this way, Child is searching for a life script, his narration becomes confused, and the meaning is lost in unresolved traumatic experiences (Mellacqua, 2014). If we know that life script consists of the number of decisions a child makes based on the script messages about them, others and the world, it is assumed that script messages shall in this context have an important role with the people with schizophrenia.

Purpose of research

Connection between script injunctions, life positions and defense mechanisms with people with schizophrenia. Precisely, we were interested in the connection between: 1) malign script injunctions and defense mechanisms of the people with schizophrenia and 2) life positions and defense mechanisms of the people with schizophrenia.

Method

Sample

The research included 42 respondents with the diagnosis of schizophrenia. All the respondents were diagnosed with paranoid type of schizophrenia, and based on the anamnestic data, respondents with three or more decompensations have been separated, by which chronicity of disorders was indicated. It was conducted in cooperation between outpatients of the Center for Mental Health of the Community Health Center Zvornik and hospital patients of Special hospital for psychiatry Sokolac.

The age structure of the respondents was equal – 20 men (47.6 %) and 22 women (52.4%). The average age was 48 years, where the youngest respondent was 27, and the oldest 67 years old. There was a mild advantage of the number of respondents living in a village – 23 respondents (54.8%) compared to those living in a town - 19 respondents (45.2%). Of all them, 6 respondents (14.3%) finished elementary school, 31 respondents (73.8%) finished high school and 5 respondents (11.9%) finished college.

Instruments

Life style scale (LSI) (Conte & Apter, 1995) is intended for measuring defense mechanisms. It consists of 92 items that check the existence of eight defense mechanisms: repression, regression, displacement, negation, projection, compensation, reaction formation and intellectualization. The scale has satisfactory reliability – 0.87 Cronbach's alpha coefficient.

Script injunctions scale (Gavrilov-Jerković et al., 2010) measures the level and type of 12 script injunctions. It contains 71 items that result from Lickert's scale. Raw scores turn into T-scores. There are border values for each injunction. Results above these values confirm their existence. According to the authors of this scale, values above 70 T-score imply significantly higher possibility that the person who was exposed to these messages shall have problems in psychosocial functioning. Reliability of the scale measures 0.96 Cronbach's alpha coefficient, while reliability of the subscale measures 0.48 and 0.83. The scale has good discriminative value.

Life positions scale (Boholst, 2002) measures life positions and contains 20 claims. The answers are collected via five-degree scale of Lickert's type. The questions estimate the attitude towards oneself and towards others, which can be positive and negative. The score for each position is calculated by adding the scores of all four combinations of "I" and "the other", in such a way that dominant life position comes out. On the scale, it is possible to get one of the following positions: "I am OK – you are OK", "I am OK – you are not OK", "I am not OK – you are OK" and "I am not OK – you are not OK".

Variables

In the research we had independent variables which constituted subscales of the used instruments - eight defense mechanisms, four life positions and twelve script injunctions, which were all operationally defined as summary scores.

Demographic variables are age, sex and education.

Data processing

Simple correlation analysis was conducted. The data were processed using statistical program SPSS 20.0.

Results

Descriptive statistics

Table 1. *Descriptive statistics for variables of Script injunctions scale*

	Minimum	Maximum	Mean	Std. Deviation
Don't exist	10.00	49.00	22.70	12.43
Don't be yourself	3.00	15.00	8.02	3.75
Don't be a child	2.00	10.00	4.85	3.04
Don't grow up	6.00	30.00	17.40	6.85
Don't be successful	6.00	28.00	15.95	7.78
Don't	6.00	30.00	20.61	6.69
Don't be important	6.00	30.00	15.16	8.94
Don't belong	8.00	40.00	22.11	9.94
Don't be close	5.00	25.00	13.76	6.96
Don't be healthy	3.00	15.00	8.02	4.43
Don't think	8.00	39.00	23.33	10.30
Don't feel	8.00	39.00	24.69	8.94

Table 2. *Descriptive statistics for variables of Life style scale*

	Minimum	Maximum	Mean	Std. Deviation
Repression	1.00	9.00	3.33	2.17
Regression	2.00	13.00	6.00	3.06
Displacement	1.00	7.00	2.21	1.76
Negation	1.00	10.00	5.66	2.55
Projection	1.00	12.00	6.07	3.36
Compensation	1.00	10.00	4.38	2.60
Reaction formation	1.00	10.00	5.00	2.29
Intellectualization	1.00	12.00	7.11	3.50

Table 3. *Descriptive statistics for variables of Life positions scale*

	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
					25th	50th (Median)	75th
I am OK	20.14	5.25	5.00	25.00	16.75	22.00	24.00
I am not OK	13.07	5.83	5.00	25.00	8.00	12.50	18.00
You are OK	20.00	4.21	7.00	25.00	18.00	21.00	23.00
You are not OK	14.04	4.60	5.00	21.00	9.00	15.00	17.00

In order to gain a certain life position, "I am not OK" scores were processed in a way that their total score was added to "I am OK", so we had a global "I" scale. Same was the procedure for "You" scale. Median was calculated and then cut-off score was made between OK and not-OK beliefs. Respondents with score above 50% were "I am OK", and below were "I am not OK". Same was the procedure for "You" scale (Boholst, 2002).

Hypotheses testing

Table 4. *Expression of script injunctions*

Injunction:	Raw scores	T-scores
"Don't exist"	23.50	> 70 Malign
"Don't be yourself"	8.12	>70 Malign
"Don't be a child"	4.86	>69 Malign
"Don't grow up"	17.40	60 – 62 Not malign
"Don't be successful"	15.95	66 – 69 Not malign
"Don't"	20.62	64 – 66 Not malign
"Don't be successful"	15.17	>70 Malign
"Don't belong"	22.12	>70 Malign
"Don't be close"	13.76	>68 Malign
"Don't be healthy"	8.12	>71 Malign
"Don't think"	23.33	>69 Malign
"Don't feel"	24.69	>70 Malign

In table 4 we can see that nine out of twelve script injunctions singled out on malign level. Those are script injunctions whose T-scores exceed border values foreseen in the manual for the execution of this questionnaire (Gavrilov-Jerković et al., 2010), and those are: Don't exist, Don't be yourself, Don't be a child, Don't be important, Don't belong, Don't be close, Don't be healthy, Don't think and Don't feel.

Table 5. *Correlation analysis for Script injunctions scale and Life style index scale*

Script injunctions	Don't exist	Don't be yourself	Don't be a child	Don't be important	Don't belong	Don't be close	Don't be healthy	Don't think	Don't feel
Defense mechanisms									
Repression	-0.117*	-0.145*	-0.052*	0.060*	-0.116*	-0.175*	-0.055*	0.152*	0.123*
Regression	-0.129*	-0.178*	-0.026*	0.085*	-0.044*	-0.190*	-0.043*	0.104*	0.201*
Displacement	0.099*	0.173*	0.161*	0.409**	0.120*	0.072*	0.269*	0.314*	0.300*
Negation	-0.646**	-0.570**	-0.446**	-0.421**	-0.445**	-0.572**	-0.381*	-0.420**	-0.421**
Projection	-0.413**	-0.486**	-0.464**	-0.400**	-0.273*	-0.506**	-0.380*	-0.314*	-0.186*
Compensation	-0.457**	-0.435**	-0.397**	-0.173*	-0.375*	-0.409**	-0.364*	-0.258*	-0.234*
Hypercompensation	-0.361*	-0.243*	-0.318*	-0.139*	-0.218*	-0.294*	-0.149*	-0.075*	-0.118*
Intellectualization	-0.733**	-0.709**	-0.689**	-0.547**	-0.552**	-0.692**	-0.642**	-0.562**	-0.493**

** p < 0,01, * p < 0,05

Intellectualization and Negation are significantly statistically connected to all variables of Script injunctions scale (Table 5). All correlations are negative, and they range from -0.381 to -0.733, which matches middle and high intensity of correlation.

Projection statistically significantly correlates with all variables of Script injunctions scale, except with "Don't belong" and "Don't feel". Correlations are negative and of moderate intensity.

Compensation is statistically significantly connected with variables of "Don't exist", "Don't be yourself", "Don't be a child", "Don't be close", "Don't belong" and "Don't be healthy" from Script injunctions scale, and these correlations are negative and of moderate intensity.

Displacement is connected with variables of "Don't be important", "Don't think", and "Don't feel". These three correlations are of positive direction and of moderate intensity. It also gains marginal significance while correlating with variables "Don't feel", whereas this correlation is of weak intensity.

Hypercompensation is statistically significantly connected with variables "Don't exist" and "Don't be a child". The correlation is of negative direction and is significant on level $p < 0.05$.

The remaining two variables of Life style scale, Repression and Regression, do not correlate significantly with any variable of Script injunctions scale.

Table 6. Correlation analysis for Life positions scale and Life style scale

Life positions Defense mechanisms	I +	I –	You +	You –
	I am OK – You are OK	I am OK – You are not OK	I am not OK – You are OK	I am not OK – You are not OK
Repression	0.344*	-0.015*	0.335*	0.062*
Regression	0.329*	-0.036*	0.300*	0.139*
Displacement	0.005*	0.177*	0.045*	0.351*
Negation	0.673**	-0.413**	0.679**	-0.096*
Projection	0.510**	-0.280*	0.386*	0.034*
Compensation	0.592**	-0.405**	0.537**	-0.079*
Hypercompensation	0.423**	0.102*	0.433**	0.238*
Intellectualization	0.796**	-0.476**	0.710**	-0.212*

** $p < 0,01$, * $p < 0,05$

Variables of Life positions scale are correlated in different intensity and in different directions with variables of Life style scale (Table 6).

"I am OK – you are OK" is statistically significantly correlated with all variables of Life style scale, except with Displacement. Strength of correlation varies from 0.329 to 0.796. All correlations have positive direction.

"I am OK – you are not OK" is significantly statistically correlated with three variables Life style scale and those are: Negation, Compensation and Intellectualization. Each of these three correlations have negative sign mark.

Correlations are of moderate intensity.

"I am not OK – you are OK" is not statistically significantly correlated only with Regression and Displacement. It makes positive correlations with other variables of moderate intensity (Repression, Projection, Compensation and Hypercompensation) and high intensity (Negation and Intellectualization).

"I am not OK – you are not OK" made statistically significant correlation only with Displacement. The correlation of these two variables is 0.351.

Discussion

The purpose of the research was to investigate the correlation of defense mechanisms of the persons with schizophrenia with their script injunctions and life positions.

The obtained results show that nine out of twelve script injunctions singled out on malign level. The three script injunctions which were not significant on our sample are "Don't", "Don't be successful" and "Don't grow up". In the research conducted by Budiša and associates (2012), the discriminative analysis showed that clinical group had much higher scores on all script injunctions compared to non-clinical population. This result together with our result are in accordance with the transactional theoretical assumption which claims that every type of psychopathology implies presence of script injunctions (Budiša et al., 2012). Precisely, for people with schizophrenia, it has been shown that relying on script messages and developed life script based on it was very emphasized, knowing that exclusion mechanism, ego condition of the Adult, was largely unfunctional (Mellacqua, 2014).

The results of correlation analysis for malign script injunctions and defense mechanisms have shown that defense mechanisms Intellectualization, Negation, Projection, Compensation and Hypercompensation are correlated in negative direction with majority of malign script injunctions. That is to say, the more expressed these mechanisms are with some person, the less present these malign script injunctions are. The said defense mechanisms can potentially present protective factor with people with schizophrenia, and for the precise mechanism via which this all happens, further researches and firmly founded theoretical framework that shall connect the achieved results, are necessary.

Repression and Regression do not correlate significantly with any variable of Script injunctions scale. Projection has negative correlations with majority script injunctions except with "Don't belong" and "Don't feel". According to the researches, we had expected positive correlations with these injunctions, since there was evidence that patients from the spectrum of paranoid disorders, where projection presents the main defense mechanism, have especially expressed script injunctions "Don't belong" and "Don't feel" (Budiša et al., 2012). However, absence of negative correlations with only these script injunctions can be in favor

of the findings of the previous researches, and so the potential explanation could be that on bigger sample and with better methodological parameters, these correlations could be positive.

On the other hand, all defense mechanisms (except Displacement) are correlated with the most desired life position "I am OK – you are OK". In addition, the position "I am not OK – you are not OK" made statistically significant correlation only with Displacement.

Position "I am OK – you are not OK" is negatively correlated with mechanisms Negation, Compensation and Intellectualization. "I am not OK – you are OK" has positive correlations with all defense mechanisms except with Regression and Displacement. Owing to the fact that according to Bern, "I am not OK – you are not OK" is a schizoid position (Boholst, 2002), we can assume that with certain people with schizophrenia, it is specifically toxic for their mental health – people with this position are potentially more vulnerable due to undeveloped system of defense mechanisms, which is also suggested by our findings.

All these findings can imply high importance of defense mechanisms in maintaining certain life position or even that life position influences the choice of defense mechanisms. We cannot claim on the basis of these analyses that there is some possible causality.

Knowing that the used technique was self-report, and that potential ability of understanding the text was limited, typical of clinical population, we consider that additional confirmations from other researches, with different measuring techniques, such as clinical observation and structural clinical interview, are necessary.

Conclusion

To our knowledge, there were no previous researches on this topic. Therefore we can expect the contribution of this research, potential further researches, and future theoretical linking of these concepts.

In this research it was also proved that script injunctions are potentially important indicators of existence of psychopathology, knowing that they were mostly all present with our respondents, who are persons with schizophrenia diagnosis.

It is interesting to notice that presence of certain defense mechanisms means decrease of script injunctions, given that the correlations were of negative direction. The defense mechanism which especially stands out, in correlations with injunctions and in correlations with life positions, is Displacement. This mechanism is the only one which made positive correlations with script injunctions and with life position "I am not OK – you are not OK" (and it is the only one which does not make correlations with the position "I am OK – you are OK"). It could be said that people who have tendency to direct their feelings and instincts towards other

person or object, were some when exposed to malign messages saying that they should not feel, think or be important, and that they have dominantly adopted a position that that neither they nor the world around them are all right.

Investigating defense mechanisms, script injunctions and life positions has important clinical implications, considering that psychotherapeutic intervention can influence each aspect.

References

- Berne, E. (1972). What do you do after you say hello. *The psychology of human destiny*. Grove, New York Google Scholar.
- Boholst, F. A. (2002). A life position scale. *Transactional Analysis Journal*, 32(1), 28-32.
- Bond, M. P., & Vaillant, J. S. (1986). An empirical study of the relationship between diagnosis and defense style. *Archives of General Psychiatry*, 43(3), 285-288.
- Bond, M., Christopher, J., Gautier, M., Goldenberg, M., Oppenheimer, J., & Simand, J. (1989). Validating the self-report of defense styles. *Journal of Personality Disorders*, 3(2), 101-112.
- Bond, M., Gardner, S. T., Christian, J., & Sigal, J. J. (1983). Empirical study of self-rated defense styles. *Archives of general psychiatry*, 40(3), 333-338.
- Budisa, D., Gavrilov-Jerkovic, V., Dickov, A., Vuckovic, N., & Mitrovic, S. M. (2012). The presence of injunctions in clinical and non-clinical populations. *International Journal of Transactional Analysis Research & Practice*, 3(2).
- Conte, H. R., & Apter, A. (1995). The Life Style Index: A self report measure of ego defenses.
- Cramer, P. (2000). Defense mechanisms in psychology today: Further processes for adaptation. *American Psychologist*, 55(6), 637.
- Crea, G. (2014). Predictive effect of injunctions on personality disorders in dysfunctional Catholic priests and religious sisters: a study using Millon's model and Transactional Analysis. *Mental Health, Religion & Culture*, 17(8), 832-846.
- Džamonja-Ignjatović, T., Divac-Jovanović, M., Milanović, M., & Dimitrijević, M. (2014). Construction and characteristics of questionnaire for the assessment of defense mechanisms: MOD. *Psihijatrija danas*, 46(2), 155-172.
- Endersen, I. M. (1991). A Norwegian translation of the Plutchik questionnaire for psychological defense. *Scandinavian journal of psychology*, 32(2), 105-113.
- Ernst Jr, F. H. (1971). The OK corral: The grid for get-on-with. *Transactional Analysis Journal*, 1(4), 33-42.
- Freud, A. (1936). The ego and the defense mechanisms. *ff. Psycho. Verlag. Vienna*, 126.
- Gavrilov-Jerković, V., Budiša, D., Lekić-Babić, N., & Čolović, P. (2010). Procena skriptnih zabrana (SSZ-skala). U: *Biro, M., Smederevac, S., Novović (ur.) Procena psiholoških i psihopatoloških fenomena, CPP, Beograd*, 123-140.
- Goulding, M. M., & Goulding, R. L. (1997). *Changing lives through redecision therapy*. Grove Press.

- Greenwald, A. G. (1992). New Look 3: Unconscious cognition reclaimed. *American Psychologist*, 47(6), 766.
- Hentschel, U., Draguns, J. G., Ehlers, W., & Smith, G. (2004). Defense mechanisms: Current approaches to research and measurement.
- James, M., Jongeward, D., & Karpman, S. B. (1971). *Born to win: Transactional analysis with gestalt experiments* (pp. 64-65). Reading, MA: Addison-Wesley publishing company.
- Lammers, W. (1994). Injunctions as an impairment to healthy ego state functioning. *Transactional Analysis Journal*, 24(4), 250-254.
- Marcel, A. J. (1983). Conscious and unconscious perception: Experiments on visual masking and word recognition. *Cognitive psychology*, 15(2), 197-237.
- McFarren, C. (1998). Narcissism: "I'm OK, you're not!". *Transactional Analysis Journal*, 28(3), 244-250.
- Merikle, P. M., Smilek, D., & Eastwood, J. D. (2001). Perception without awareness: Perspectives from cognitive psychology. *Cognition*, 79(1-2), 115-134.
- Mellacqua, Z. (2014). Beyond symbiosis: The role of primal exclusions in schizophrenic psychosis. *Transactional Analysis Journal*, 44(1), 8-30.
- Morgan, C., & Fisher, H. (2007). Environment and schizophrenia: environmental factors in schizophrenia: childhood trauma—a critical review. *Schizophrenia bulletin*, 33(1), 3-10.
- Milivojević, Z. (2004). Ego stanja, materijali za edukaciju iz transakcione analize. *Novi Sad: TA Centar*.
- Plutchik, R., Kellerman, H., & Conte, H. R. (1979). A structural theory of ego defenses and emotions. In *Emotions in personality and psychopathology* (pp. 227-257). Springer, Boston, MA.
- Steiner, C. M. (1974). *Scripts people live: Transactional analysis of life scripts*. New York: Grove.
- Stewart, I., & Joines, V. (1987). *TA today: A new introduction to transactional analysis*. Vann Joines.
- Vaillant, G. E. (1971). Theoretical hierarchy of adaptive ego mechanisms: A 30-year follow-up of 30 men selected for psychological health. *Archives of general psychiatry*, 24(2), 107-118.
- Vaillant, G. E. (1992). The historical origins and future potential of Sigmund Freud's concept of the mechanisms of defence. *International Review of Psycho-Analysis*, 19, 35-50.
- Woollams, S., Brown, M., & Huige, K. (1976). Transactional analysis in brief.

Snežana Samardžić

Marina Novaković

Specijalna bolnica za psihijatriju Sokolac, Republika Srpska; Dom zdravlja Zvornik, Republika Srpska*

POVEZANOST SKRIPTNIH ZABRANA, ŽIVOTNIH POZICIJA I MEHANIZAMA ODBRANE KOD OSOBA SA SHIZOFRENIJOM

Sažetak

Problematika ovog istraživanja tiče se ispitivanja specifičnosti psihološkog funkcionisanja osoba sa shizofrenijom i njihov odnos sa mehanizmima odbrane. Mehanizmi odbrane predstavljaju integralni deo funkcionisanja ego stanja. Oslanjajući se na koncepte transakcione analize, zanimalo nas je da li onda postoji povezanost između skriptnih zabrana i životnih pozicija osoba sa shizofrenijom i mehanizama odbrane koje koriste. Konkretno, cilj je bio da se ispita kakva je povezanost između skriptnih zabrana i mehanizama odbrane i životnih pozicija i mehanizama odbrane osoba sa shizofrenijom. U ispitivanju je učestvovalo 42 ispitanika sa dijagnozom shizofrenije. Korišćeni instrumenti: Skala skriptnih zabrana (Gavrilov-Jerković et al., 2010), Skala životnih pozicija (Boholst, 2002) u Skala životnog stila (Conte & Apter, 1995). U prvoj fazi analize, pokazalo se da devet od dvanaest skriptnih zabrana dostiže maligni nivo (T-skor veći od 70) - „Nemoj da postojiš“, „Ne budi ti“, „Ne budi dete“, „Ne budi važan“, „Ne pripadaj“, „Ne budi blizak“, „Ne budi zdrav“, „Nemoj da misliš“ i „Nemoj da osećaš“. Maligne skriptne zabrane dalje su korelirane sa mehanizmima odbrane. Rezultati pokazuju da mehanizmi odbrane Intelektualizacija i Negacija iz Skale životnog stila postižu najviše korelacije i statistički su značajno povezane sa svim varijablama Skale skriptnih zabrana. Sve korelacije su negativne i kreću se u rasponu od $r = -0.381$ do $r = -0.733$ ($p < 0,01$). Rezultati korelacione analize pokazuju i da četiri životne pozicije („Ja sam OK – Ti si OK“, „Ja sam OK – Ti nisi OK“, „Ja nisam OK – Ti si OK“ i „Ja nisam OK – Ti nisi OK“) ostvaruju povezanost različitog intenziteta i različitih smerova sa mehanizmima odbrane o čemu je diskutovano u radu.

Ključne reči: shizofrenija, skriptne zabrane, mehanizmi odbrane, životne pozicije

OUR BODY: A TOOL FOR INTEGRATION OF EMOTIONS AND CONSCIOUSNESS – PERSPECTIVE OF A BODY PSYCHOTHERAPIST

Abstract

We discuss theoretical concepts of body-oriented psychotherapy such as the connection between our body, emotions, and consciousness. We share a possible explanation of how our consciousness could be distributed throughout our bodies, as well as how our muscular system is the physical representation of our thoughts and feelings. From the perspective of body-oriented psychotherapy, the way person is treated by one's environment during childhood and early adulthood may lead to forming psychological and physical blocks. In other words, when the expression of emotions that could be perceived as inappropriate in one's environment such as anger or fear becomes repressed, it as well becomes trapped on the somatic level. We discuss some of the processes that lead to the development of these blocks that become automatic and unconsciousness throughout ones' adult life. As a consequence, we find dysfunctionality in everyday life on both psychological and psychosomatic level. Furthermore, our aim is to present ways to overcome these challenges. The body-oriented psychotherapy is based on the integration of mind and body which makes the further growth of consciousness possible. By working with body awareness, we develop one's capacity to contain emotions, build healthy boundaries and lead a purposeful life.

Key words: body psychotherapy, emotions, consciousness, mind-body integration

Body Speaks the Mind: Body Oriented Psychotherapy

Our consciousness is located not only in our mind but in our whole body. Our body is an important carrier of all of our life experiences. It is an expression of emotional history of a person that could be seen by looking at a person's body posture, movements, or facial expressions. The human muscular system is the physical representation of our thoughts and feelings (Klisić, 2010). It is easy to notice that by looking at certain people who have a characteristic body posture or chronic facial tension (e.g. chronic facial expression of sadness).

Physical body and psychological self are two inseparable aspects of a human being. Changing one of these aspects automatically leads to changes in

¹ corresponding author stojadinovic.irena@gmail.com

the other. Our thoughts and feelings have their material representations – that is, our body including our nervous system, muscular, and all other systems of organs. In line with that, our body represents a valuable asset that could be used in psychotherapy. Working with the body provides a more direct access to repressed content comparing to other verbally oriented psychotherapeutic methods (Klisić, 2004).

“The subject of body-oriented psychotherapy is to study the interaction between the client’s mental representations and their physical processes” (Klisić, 2004, p. 103). The theory and practice of body-oriented psychotherapy treat the body as equally important as the mind. It is a valuable tool used to reconnect with the repressed emotions, bring them into consciousness, and integrate them into the present in order to overcome maladaptive coping strategies and lead towards behavioral change (Klisić, 2010). Moreover, it facilitates the expansion of consciousness and personal growth. These processes such as muscle activity, movement, breathing, body position, muscular tension are used to improve results of psychotherapy.

“...something is always trying to happen” (Rose, 2018, p. 133). During the psychotherapy process a person’s body provides different valuable information. Sometimes a simple question “how are you feeling” can be difficult for a person and provoking the struggle to find the answer. Still, even if the mind is not capable of answering, the body is. When asked that particular question, Lucy looked distantly at her right not knowing what to say. Her therapist previously encouraged her that it is all right not to know the answer and instructed her just to pay attention on the sensations in her body. Now, he pointed out her movement and suggested that she look at her left and try to „find” the answer again. And she did. She turned her head to the left until she reached the position where only her hair was visible to the therapist but not the face. It was clear that she was hiding. But the impression the therapist had was that she was showing her real self. By concealing she was revealing herself. She was demonstrating her feelings and not failing in attempt to name them (Rose, 2018).

Body-oriented psychotherapy represents a collection of various practices that differ regarding the role of the body in the therapeutic process. The method represented in this paper relies mainly on empirically-based theory and practice of Radix oriented “Tepsyntesis – the School of Body Psychotherapy” (Klisić, 2010). It was founded in 1976., following the line of knowledge development: Pierre Jean, Wilhelm Reich, Charles Kelly, Ljiljana Klisić (the founder). Moreover, theory and practice of “TePsyntesis”, as well as its concepts are scientifically validated (Klisić, 1989).

Basic Concepts

“...knowledge itself cannot replace existential awareness, nor can mind replace the fullness of the body. Creating a sense of wholeness in the Self was, and still is, the main goal of any personal development” (Đorđević, 2018, p. 33).

Modern society favors the importance and power of cognition and intellect over emotions. That is the reason way the approach of body-oriented psychotherapies is so valuable. Body sensations, sense of embodiment and emotions, along with cognition, are enabling comprehensible methodology to enforcing personal development.

Within the framework of Radix practice, one of the basic concepts is pulsation (Kelley, 2004). Pulsation, described as the rhythmic movement of expansion and contraction, is an important function of all living systems. If we observe humans and animals, obvious examples of pulsation are breathing (inhale and exhale) or the activity of the heart muscle (contraction and dilatation). Moreover, the one's interaction with the environment could be seen as pulsation as well. The expansion implies reaching out towards the environment and making contact with others. The contraction implies returning to one's inner world and making contact with oneself.

Depending on the conditions of the environment, risk or protection model will be activated within an individual (Kelley, 1975). When the conditions are favorable, an individual perceives his/her environment as safe which leads towards expressing pleasant emotions and the activation of the risk model. The expansion is experienced as love and joy, whereas the contraction is experienced as trust and receptivity. If the environment is unfavorable and/or frustrating in any way, the protection model is activated. The unpleasant emotions such as anger are experienced with the expansion whereas fear is experienced with the contraction. In this way, emotions we experience serve us as guidelines to navigate through life and protect ourselves if necessary.

Human being is equipped with this system of optimal functioning which can be activated in different ways: when there is danger – protect, when there is no danger – enjoy. Feelings such as anger, sadness and fear are uncomfortable, but not negative or unwanted. They exist with purpose and meaning. They are valuable signs, alarming us when something is wrong in the ongoing situation, and preparing us to react in order to be able to change it and to be safe. , the However, problem occurs when feeling and expressing emotions (more often the uncomfortable emotions) are intolerable, thus repressed and stored in our muscles. Emotional responses become inappropriate for a particular situation in the present reflecting the patterns modeled in the past (e.g. exaggerated fears, impulsive behaviors or passive aggression). The related issue refers to the repression of pleasant emotions. Bearing in mind that, in order to express anger and love, we use the same direction of pulsatory movement towards outside, if in the past the expression of anger was not handled properly and repressed, this repression will reflect on our capacity to feel love as well. Anger and love use the same "pathway". So, if we don't have the proper capacity to feel anger, we won't have the proper capacity to feel love either. The expansion towards the outside world is blocked. It is important to notice that having a proper capacity for anger does not mean getting angry easily but reacting according to the situation.

The same goes for fear and trust. If we are unable to feel fear in a dangerous situation or we get scared easily, we will have difficulties forming relationships of trust. The direction towards the inside world is blocked.

In addition to the mentioned pairs of emotions – anger and love, fear and trust – there is another pair which is directly related to the modes of protection and risk and represent basic foundation of these modes; these are pain and pleasure. According to Kelley, pain and pleasure are developed at the earliest stages of the evolution process and can be found in very simple organisms. They are manifested through movements of expansion and contractions that follows these sensations (i.e. pleasure is connected to expansion whereas pain is connected to contraction of an organism) (Kelley, 1975).

Armoring

In “Tepsyntesis”, a human being, in its natural state, is seen as capable of feeling and expressing wide variety of emotions, unrestricted body expression as well as living and relating authentically (Klisić, 2004). In line with that, the spontaneity and the natural expression of movements are clearly visible in a baby or a child. Unfortunately, the society we live in forces many limitations upon us. Different deformations of human posture and movement reflect the tendency to alienate from our natural state. Since childhood we are taught to constrain in many ways. Most often children are not allowed to express different types of unpleasant emotions. For example, when a tired parent comes home after working long hours, his/her capacities to provide psychological care to his child are limited. The child is frustrated and reacts with dissatisfaction due to the unresponsive or inadequate parent behavior. This dissatisfaction expressed in the form of unpleasant feelings such as anger will be sanctioned by the parent. The child will learn that some feelings are not “good” and desirable and will try to suppress them. After many repetitions, this suppression will become automatic and the child will lose the ability to experience and express these emotions in an appropriate (situational) way. At the same time, the child’s body is involved in these suppression and repression processes. The chronic muscular tension will gradually begin to develop in the body. Depending on the level of stress, the muscle would increase or decrease its tonus (Bernhardt, Bentzen & Isaacs, 2004). Parts of the body with tensions will become numb and will not interact adequately with the rest of the body, and the experience of self will become distorted and fragmented as well. The capacity to experience numerous signals of the body, as well as to experience emotions in accordance with some specific situation will decrease. Reactions will become automatic and limited leading to restricted perception of life choices and distorted perception of reality.

During life, a person represses various emotions forming one layer over another, and distancing from ones true nature, spontaneity, and vitality. Authentic

emotional responses are annulated by distortions of exaggerated or restrained expressions, or psychosomatic issues. Character and muscular armor is formed (Kelley, 1980). The character armor consists of all personality traits that are rigidly manifested, and the muscular armor represents all chronic tensions in muscles and other body tissue. The armor influences person's capacity to experience and to express emotions, so as to connect with oneself and the world.

It is important to underline once again that the whole process of repression includes both the psychological and the somatic aspect which need to be taken into account during efficient psychotherapy process.

The muscular armor is formed relying on the breathing process (Kelley, 1980). For example, if a child is rebuked for expressing the frustration with anger, it will take a stiff and tight posture and hold the breath to avoid expressing undesirable emotion. A group of muscles used to express anger will be contracted. After many repetitions, muscle contraction will become chronic and beyond control of consciousness and willpower. Breathing mechanism and muscles involved are used to repress any undesirable emotion. With time, on the psychological level, a person will experience various difficulties such as distress, anxiety, rigidity, laziness, lack of motivation, and maladaptive behavior. The breathing mechanism represents the link between the physical and the psychological. That is the reason why it is a very important asset in body-oriented psychotherapy practices.

Overcoming the Armor

As the body-oriented psychotherapy developed in the period of WWII as well as in a rigid societal context that led to development of rigid defenses in an individual. The main goal of the psychotherapeutic process was to break a person's defenses and armor in order to liberate him/her to be able to live freely (Machnaughton, 2004). Further development of the theory and practice as well as the changes that happened on the societal level, moved the focused of the psychotherapeutic process. It is realized that breaking the armor could be damaging to a person as it represents a system of defenses and coping mechanisms needed for survival. On the other hand, building personal capacities and strengths of a client on cognitive, emotional and somatic level could lead towards overcoming the armor, thus gaining awareness and control as well as a choice between using past and newly developed coping mechanisms (Machnaughton, 2004).

In line with that, there are four basic goals of psychotherapy process in "Tepsyntesis" and similar body-oriented practices: consciousness, aliveness, choice, and body-mind integration (McKenzie, 1999). They are not unique to our practice, but their combination and emphasis and the way we achieve them is.

Expansion of consciousness is more than just an increase in intellectual awareness of person's repressed content. It is the process happening on physical level as well, and it implies experiential component. It is important for the repressed

emotions to be relived on emotional and somatic level, so the muscles and other tissues start relieving the tension. Resources (psychological and physical) used to keep away repressed content become released. This is what a person experiences when saying that his or her energy level has increased, that he or she has more energy (McKenzie, 1999). Consequently, a person is able to use this resource in different ways, becoming more proactive and taking initiative in everyday life.

Moreover, the release of the tension of specific muscle or tissue allows the connection of that body part with the rest of the body. At psychological level, this is registered as an extension of the inner world and an increase in the range of emotions that can be experienced. The person feels more alive and fully engaged in everyday life (Klisić, 2004). The sense of freedom appears and different choices become evident. A person does not react automatically using unconscious past patterns but in line with the present situation.

It is important to notice that reliving and experiencing repressed contents is important but not enough. In order to have comprehensible and long-term impact on person's sense of self, the body-mind integration is needed as well as the congruence of thoughts, feelings and behavior which allows the experience of wholeness in a person. Nonverbal techniques are used to bring the unconsciousness content into consciousness and to express it, whereas the verbal techniques are used as a mean to integrate this content in ones experience of self that consequentially leads towards changing ones behavior (Klisić, 2010).

Furthermore, there are some specific characteristics of body-oriented practices regarding the psychotherapy process. One of them is the use of touch. This is extremely sensitive subject and there are strict rules that prevent any kind of abuse. Adequate, helpful and efficient use of touch is learned during the training (Klisić, 2004).

One of the functions of the touch is the provision of support. Research of Kerstin Moberg and her team offers a thorough confirmation of the benefits of the touch used in an appropriate way (Uvnas-Moberg, 2003). They have explored the physiological aspects of the effects the touch has and linked it to the oxytocin secretion. The oxytocin is a hormone that produces a sense of calm and comfort. Additionally, the touch can be used as a tool to increase the body awareness, to encourage or facilitate different psychotherapeutic processes.

We already mentioned the importance of breathing in body-oriented psychotherapy. Since it has an important role in creating psycho-muscular armor, it is also valuable in the process of its dis-creation. Many of the body-oriented techniques rely on the breathing mechanism. Apart of its therapeutic value, breathing is also useful in diagnostics. It helps us evaluate how much a person is able to express oneself and how does he/she do it. The pace of someone's breath, its depth, breaks and other specificities of the breathing pattern are the source of important information about a person (McKenzie, 1999).

Body movement has the similar status. The way a person moves his body and its parts provides information about the amount and locations of repressed

emotions (Klisić, 2004). Moreover, during the psychotherapy process the movement serves as a mean of facilitation in the process of regaining contact with repressed contents.

Furthermore, one of the important aspects of any psychotherapeutic process is working with the boundaries. An adequate perception of boundaries corresponds with the sense where a person ends and the other starts, in both psychological and physical way. A relevant aspect of body-oriented psychotherapy is developing healthy and flexible boundaries on both mind and body level. Working with body and physical boundaries, a person acquires the capacity to contain emotions on a somatic level. Consequently, the ability to choose whether to express these emotions is developed. Consciously choosing not to express emotions as well as having capacity to contain them provides a person with flexibility and expanded spectrum of life choices. As a person becomes less trapped into her own rigid body-mind armor, becomes more capable to set strong and flexible boundaries (McKenzie, 1999).

Finally, the great aspect of body-oriented psychotherapy is working with trauma. Trauma affects all levels of a being, including body and mind, thus it requires working on all the levels. On somatic level trauma represents the failure to neutralize the effects of overwhelming stress, threat or injury. The body attempts to defend by using one of physiological responses to trauma (i.e. fight – flight – freeze). If the attempt is unsuccessful, the body remains stuck in repeating the same response. The resolution of trauma includes the completion of these incomplete defenses of trauma (Levine, 2004). In the recent years, many body oriented psychotherapists focused on developing effective treatments for trauma that rely on neuroscience and body-mind response on trauma. One of the ways the body represents a great resource in dealing with consequences of trauma is as it brings back the client in the present moment, separating it from memory on trauma and its overwhelming feelings. The body is as well used as a tool in redeveloping sense of safety, containment and trust (Rothschild, 2017).

Conclusion

“Tepsyintesis” and similar body-oriented psychotherapies perceive mind and body as equally important parts of one whole as well as valuable sources of information about a person. If we understand child as a “prisoner” of his emotions and needs, unable to postpone their expression and immediate satisfaction; adult as a “prisoner” of his muscular and character armor and distant from his deep emotions and needs – the main aim of this method is to help a person become a mature adult with flexible armor, with capacities to experience and contain wide variety of emotions and the choice to decide when and where to express them (Klisić, 2004). This conscious individual is fully engaged and present in life, with his body serving as a container and source of support and strength; congruent in his thinking, feeling, and behavior.

References

- Bernhardt, P., Bentzen, M. & Isaacs, J. (2004). Waking the Body Ego, Part1: Core Concepts and Principles. In Macnaughton, I (Ed.), *Body, Breath and Consciousness* (pp. 131 – 160). Berkeley, California: North Atlantic Books.
- Dorđević, S. (2018). The Role of Embodiment in the Therapeutic Process: A Case Study. In Young, C (Ed.), *Body Psychotherapy Case Studies* (pp. 32 – 40). Galashiels, UK: Body Psychotherapy Publications.
- Levine, P. (2004). Panic, biology, and the reason giving the body its due. In Macnaughton, I (Ed.), *Body, Breath and Consciousness* (pp. 131 – 160). Berkeley, California: North Atlantic Books.
- Kelley, C. R. (1975). *Education in Feeling and Purpose*. Vancouver, USA: Charles Kelley.
- Kelley, C. R. (1980). What is the matter with man: The origin of muscular armor. *Radix Journal*, Vol. 2, 29 – 40.
- Kelley, C. R. (2004). *Life force: The creative process in man and in nature*. Victoria, BC, Canada: Trafford Publishing.
- Klisić-Dorđević, Lj. (1989). *Evaluation of the success of Radix psychotherapeutic education and body oriented psychotherapeutic methods*, Doctoral Dissertation, University of Belgrade, Belgrade, Yugoslavia.
- Klisić, Lj. (2004). *Telesna psihoterapija*. Beograd: UTPJ.
- Klisić, Lj. (2010). *TE-PSINTESIS - škola telesne psihoterapije*. Beograd: UTPS.
- McKenzie, N., & Showell, J. (1998). *Living fully: an introduction to Radix body-centred personal growth work*. Australia: N. McKenzie and J. Showell.
- McKenzie, N. (1999). The therapeutic goals and concepts of radix work. Paper presented at Radix Conference, Florida, USA.
- Macnaughton, I. (2004). The Narrative of the Body-Mind – Minding the body. In Macnaughton, I (Ed.), *Body, Breath and Consciousness* (pp. 131 – 160). Berkeley, California: North Atlantic Books.
- Rose, R. (2018). Intrigue and Impasse: A Session with Lucy. In Young, C (Ed.), *Body Psychotherapy Case Studies* (pp. 132 – 137). Galashiels, UK: Body Psychotherapy Publications.
- Rothschild, B. (2017). *The Body Remembers*. New York: W. W. Norton.
- Uvnas-Moberg, K. (2003). *The oxytocin factor: Tapping the hormone of calm, love and healing*. Cambridge: Perseus Publishing.

Irena Stojadinović

Ana Petrović

Univerzitet u Beogradu, Filozofski fakultet;

Tepsynthesis – Srpska škola telesne psihoterapije

NAŠE TELO: ALAT ZA INTEGRACIJU EMOCIJA I SVESTI - PERSPEKTIVA TELESNOG PSIHOTERAPEUTA

Sažetak

Raspravljamo o teorijskim konceptima telesno orijentisane psihoterapije, kao što je veza između našeg tela, emocija i svesti. Delimo moguće objašnjenje kako bi se naša svest mogla rasporediti po našim telima, kao i kako je naš mišićni sistem fizički prikaz naših misli i osećaja. Iz perspektive telesno orijentisane psihoterapije, način na koji se osoba ponaša u nečijem okruženju tokom detinjstva i rane odrasle dobi može dovesti do formiranja psiholoških i fizičkih blokova. Drugim rečima, kada se izražavanje emocija koje bi se moglo smatrati neprimerenim u nečijem okruženju, kao što su ljutnja ili strah, potiskuje, takođe postaje zarobljeno na somatskom nivou. Raspravljamo o nekim procesima koji vode ka razvoju ovih blokova koji postaju automatski i nesvesni tokom života odraslih. Kao posledica toga, nalazimo disfunkcionalnost u svakodnevnom životu kako na psihološkom tako i na psihosomatskom nivou. Dalje, naš cilj je predstaviti načine prevazilaženja ovih izazova. Psihoterapija orijentisana na telo zasniva se na integraciji uma i tela što omogućava dalji rast svesti. Radeći sa svesnošću tela, razvijamo nečiju sposobnost za zadržavanje emocija, izgradnju zdravih granica i vođenje svrhovitog života.

Ključne reči: telesna psihoterapija, emocije, svesnost, um-telo integracija

USING AND ABUSING AGGRESSION AND POWER

Abstract

This paper is a theoretical overview of two phenomena, power and aggression, based on two paradigms – Transactional Analysis and Tepsyntesis Radix oriented Body Psychotherapy. The first part of the paper answers the question – what happens between individuals, how some people impose their will abusing their power to control the others? The classification of power plays and possible ways to respond to these will be presented. The second part shows what happens within an individual – what determines if he/she feels powerful or powerless? Working with people and their aggression shows that different destructive phenomena represent points of a wider spectrum called agrasm. It is literally the life expression in action. This is an active, outward type of reacting to a threatening situation and main power source of every individual. The theory of agrasm explains how it can be used or abused. Destructive behavior and the need to control the others characterize the early stages of development of aggression. At more developed stages, we acquire the need to protect ourselves and others. Finally, we will consider possible ways of further research and what can we do to help an individual to deal with power issues.

Key words: power plays, powerlessness, aggression, theory of agrasm.

Starting Point

This paper is a theoretical overview of two phenomena – power and aggression – from the perspective of Transactional analysis and Tepsyntesis Radix oriented Body psychotherapy.

An obvious paradox of today points out the relevance of the subject. We are overwhelmed from all over about the level of freedom a modern individual has achieved and the amount of power he has at his disposal – the society is growing, science and technology are progressing; the propaganda shouts “Everything depends on *You*”, “Everything is in *Your* hands” etc. At the same time, helplessness and dependency on the system is nurtured. Everyday life is characterized by unnaturally long working hours, competitiveness and consumer values that do not provide an individual with an authentic experience of fulfillment, not to mention the freedom.

Furthermore, close relationships are more often area for displaying destructive unconscious patterns than the source of support and empowerment.

In such a life arrangement, it is easy to get confused and become a victim of the abuse of another’s will and power. Answering the questions – who is and

¹ corresponding author ana5rovic@yahoo.com

how much responsible, and what is and how much in your power or power of the others – becomes very challenging.

A certain traumatization of an individual is happening and it diminishes his ability to grow and develop, evaluate truth and humanity, and ultimately – leads to the destruction of humankind (Klasic, Mandic, Cvetkovic, 2015). The modern society demands of an individual to adapt to the huge number of conditions which leads to excessive adaptation and inhibition of his psychological development. It does not stimulate, and even punishes, dealing with important subjects and the tendency to approach phenomena with consideration. Instead, small talk is encouraged, and people are moving away from essentials becoming powerless. Empathy and benevolence are abused or treated with suspicion. People are left without important resources that make them human; they cease to be humans (by abusing others) or cease to be (to exist as functional psychological beings).

Since the situation is as it is, it seems that modern approaches dealing with this subject are missing something. Theorists and practitioners are mostly concerned about reasons and means of power abuse. It is the basis of many models of prevention and protection, certainly making the situation easier. However, introducing the seeds of two teachings with a broader perspective could make more clear what is missing and help resolving some of the issues.

And what is missing is the other side, not the abuse but the use of power and closely related concept of aggression.

The Concept of Power in Transactional Analysis

We will start with the Transactional Analysis and power definition given by Clod Steiner: “(power) is the capacity to produce change in spite of the resistance that occurs, as well as the capacity to provide resistance to the change that strives to happen” (Steiner, 2004). At this point power itself is not good or bad. Producing the change can lead to creation or destruction, defense or attack.

In terms of interpersonal relationships, actualizing this capacity (to produce the change or to give resistance to a change) while harming someone else is the abuse of power – a power play (Steiner, 2004). Abuse is most common in situations where there is an uneven distribution of power, deficit on one side and surplus on the other. If there is a similar amount of power on both sides, then confrontation or conflict happens.

There are several possible responses to situations where someone tries to abuse his power, to impose his will or to “pull in” somebody into the power play.

1. Submission. In a long-run this is very unfavorable solution, although it may be useful sometimes to avoid unnecessary confrontations in situations that are not very important, or if the other side is much stronger.
2. Escalation. Responding to a power play with another power play, “bigger” one – with a larger stake or threat. This is also not a long-term solution, because at some point one side will be outplayed.

3. Antithesis. This is the procedure of neutralizing the power play. Steiner calls it verbal aikido – a self-defense martial art that does not involve an attack. This response shares content with assertive forms of behavior.
4. A cooperative solution. It requires dedication and creativity, and it implies finding a situation that will satisfy both sides. The cooperative solution goes beyond the power play mode. Both offensive and defensive reactions are avoided. The other side is not seen as an opponent and as someone whose interests are not important. The interaction is raised to the level of cooperation, regardless of the fact that the other approached with an attack. This can be very difficult sometimes. But it is possible and what makes it possible is the mature stage of experiencing one's own power. Steiner calls it *The Other Side of Power*, and in Radix orientated Body Psychotherapy it corresponds to the developed stages of the *Agrasm* spectrum (Klasic, 2007).

Power Play Classification

There are several reasons for presenting Steiner's classification of power plays. First, the classification is comprehensible and easy to understand which makes it easy to apply in research and prevention purposes. Furthermore, Steiner's broader view of the phenomenon of power provides additional possibilities for preventing abuse. Also, it gives good insight how much power plays are widespread and present in everyday life.

Steiner divided power plays to physical and psychological, both being subtle or obvious in various degrees. The obvious and brutal forms of physical power plays involve throwing things, hitting the door, pushing, hitting, torturing, raping and murder. There are also more subtle forms of these plays, such as tilting over or standing too close (when proximity causes inconvenience), standing at the privileged place in the space, sitting behind the table as a protection line, aggressive gestures like clenching a fist or jaw muscle, rolling eyes or pursing the lips.

Psychological power plays can also be more or less obvious; including advertising and propaganda at the social level (Steiner, 2004). What follows is a brief overview.

1. *All or Nothing*

Those who are scared of scarcity are easily drawn into this power play. The experience of lacking something perceived as important in the past makes the person willing to do whatever it takes to avoid such situation in the future. This fear is abused by forcing the person to choose between only two possibilities – to fully accept requests of the other in order to get what she needs or to get nothing at all.

There are several variations of the *All or Nothing* power play – *Love me or Leave me, Take it or Leave it, Now or Never, You Are Either for Me or Against Me...*

In most cases of all these power plays, scarcity refers to attention, that is, honest and authentic contact between people. Steiner calls it the *Stroke Economy*. When asked why this happens, he answers that we are taught from early age that we should not seek attention and contact, we should not give our attention, we should not accept the attention we want, we should not reject the attention we do not want, we should not give attention to ourselves (Steiner, C. 2004). This is the reason for accepting various abuse in relationships, emotional blackmail, inhuman working conditions, etc.

An example of massive manipulation based on the fear of scarcity are television news programs. They are creating the lack of security by broadcasting numerous information about the tragic and terrifying events that are out of the audiences' control. It creates an experience of helplessness, and reduces confidence in the power of initiative even when the outcome is something that can be influenced.

2. Intimidation

This group of power plays is based on the fear of violence. The previous group of power plays exploited person's fear of not getting what she needs. This group exploits the fear of getting more than a person wants. Conversational intimidation uses explicit or latent verbal forms such as metaphors and logic. *Thought Stoppers* are described as various ways to disrupt someone's thinking – interruptions in the middle of a sentence or before the end of the thought, talking fast, raising voices, unfamiliar phrases or dialect, yelling, strong words and insults. *Yougottobekidding* is the maneuver that contains reacting with an exaggerated shock or surprise, unbelief and disapproval of someone's actions or intentions. *Metaphors* are easily abused when the other term of the comparison brings some kind of negative meaning.

Logic Power Plays abuse the highly valued status of logic in modern society. Logic is considered as one of the most important tools that serve human intellect; and for many people the intellect is the main feature that makes us human. All three elements of logic – premise, process of concluding and conclusion itself – provide the opportunity to "spoil" the logic and to manipulate people. *Justifying preferences and feelings* is the particular subgroup of logic abuse when a person is required to provide objective (*logical*) arguments to explain something inherently subjective. When one feels in a certain way, the feeling itself (not some external factors) is enough to validate its own existence. *Redefining* is another form of false logic. It happens when the subject is subtly changed during the course of the discussion. The initial premises are changed, and therefore the conclusion does not reflect the original problem.

3. Lies

This group of power plays abuses human gullibility and fear of confrontation. *The Bold-faced Lie* is deliberate unscrupulous lie and it is successful when one

trusts another greatly or is not adequately informed. *The Big Lie* is so big and absurd that it seems impossible for anyone to lie about it. *High Ball/Low Ball* is a maneuver of presenting two associated ideas, one of which is very attractive and serves as a bait. After some time it turns out that one idea does not imply the other. For example – let's get married, I'll respect you for the rest of my life. *Statistics* is easily misused by placing arbitral percentages into a statement which is alluring to the gullible mind.

Relevant information are the source of power giving an advantage to those who retain them. By consciously eliminating them, a person is abusing power of these information. Abuse of this kind are *Lies of Omission, Half-Truths, Secrets* and *Gossip*.

4. *Passive Power Plays*

Nobody Upstairs involves ignoring or not responding to someone else's appeal. Variations are numerous, forgetting arrangements, pretending not to hear somebody speaking, not replying to messages or calls.

Another subgroup of passive power plays is *You Owe Me*. People who use it can easily detect how much someone is liable to experience guilt or obligation, and that is how they choose their "victims". The strategy used is – give something to somebody that he or she does not actually need, and refer to that act later as something very important.

Experiencing Personal Power

Learning about different power plays will help us recognize and stop them in those cases where we are equal or have more power. But if that is not the case, if the other is on a position of greater power, simply knowing about different power plays is not enough. Something else is needed.

Steiner states that it is necessary to have at least the same amount of power as the other side to stop the power plays. He calls it *Power Parity* (Steiner, 2004).

The use of certain phrases, without authentic experience of personal power, will not result favorably with more powerful opponent. It is not important only what is being said but how it is spoken. And this is related to how a person feels. How we feel is not a matter of willpower, intention and selected words. The willpower is a result of the central nervous system activity, and how we feel and experience world includes the activity of the autonomous nervous system. We cannot just decide to change how we feel and execute this decision. When a person feels threatened or scared wanting to feel powerful will not make the change. The experience of one's own power is a matter of development (Klasic, 2007).

A Field-trip to Biology

Research of microexpressions, mirror neurons and their relation could provide validation of fundamental role of person's emotional state while interacting.

Microexpressions are unconscious, unwilling and almost imperceptible movements of the facial muscles that reflect emotions regardless of person's awareness (Ekman, 2003). It is an output, a way to send information about how we really feel.

A specific group of neurons with function not fully explored – mirror neurons – could be considered as the possible input or receiving part of human communication system. So far it is clear that they modulate their activity while an individual activates a group of muscles, but also while watching other activate the same group of muscles (Mukamel, Ekstrom, Kaplan, Iacoboni, Fried, 2010).

Since the activity of certain muscles is related to how an individual feels, we could further explore if observing someone else's microexpressions can provide an insight about how the person feels. If so, this *send – receive* system could be responsible for determining the power level of people while interacting. And it could be used (empathy) or abused, since the vulnerability or weakness of others can be an advantage of the one observing.

In any case, psychotherapeutic practice shows that in order to oppose the abuse of power of the other, an adequate experience of one's own power is necessary.

Theory and Practice of Body Psychotherapy

The question *how* still remains. How to stop a power play in real life if there is a disproportionate power distribution between parties involved? How to raise individual's personal power – one's own experience of power?

Tepsyntesis as the Radix oriented Body psychotherapy offers one possibility. One needs to reach the level of development which enables genuine and equal respect for oneself and for the other. In Transactional Analysis it is called *The Other Side of Power* (Steiner, 1987), and in Tepsyntesis the *True Power* (Klasic, 2007).

In order to understand how a person can influence its own experience of power, we will first discuss the *Risk and Protection Model*, and then the concept of aggression.

Risk and Protection Model

A person interacts with its environment by giving and receiving. Interaction by default has its outward² and inward direction. What determines the quality of both directions is the benevolence of the environment, i.e. whether conditions are favorable or hostile. If the environment is favorable the *Risk Model* is activated; person feels free to step forward, explore and take a risk. On psychological level the outward direction of favorable environment is experienced as love and joy, and the inward as trust and receptiveness. If the environment is frustrating in any way, the *Protection Model* is activated. The outward direction is experienced as anger and the inward as fear. This is how a person protects itself from potentially harmful circumstances (Kelley, 1975).

It would be interesting to determinate if *Multiple Level Visceral Model* of Steven Porges could explain neurophysiological aspect of the Risk and Protection Model, and if the two models can complement each other. From physiological standpoint

² This outward direction shares meaning with the concept of power Steiner defined as the capacity to produce change or to provide resistance to the change that strives to happen.

emotions have visceral component. There are three levels of visceral regulation, each of which produces different behavioral and psychological effects, different states or feelings. The most primitive is the Dorsal Vagal Complex which is activated in situations of sudden and overwhelming danger when the organism freezes – *play dead* reaction. The next and evolutionary more developed is the Aggression – Fear System. It is in charge of *fight* or *flight* reaction. The most evolved is the Ventral Vagal Complex that allows subtle and instantaneous changes in visceral organs. In social context this leads to *approach* or *avoidance* reaction (Liss, 2007).

Aggression and Agramsm

Aggression is usually seen as an intentional harmful act. While it is true, the situation is not that simple and one-sided. Working with people and their aggression in Tepsyntesis shows that different destructive phenomena represent points of a wider spectrum called agramsm. Based on this work the Theory of agramsm was developed (Klasic, 2007). Agramsm is literally the life expression in action. It is an active, outward type of reacting in a threatening situation. If the Model of Protection is activated, this is what *comes out* while an individual is interacting. We can link it with self-preservation instinct.

Destructive behavior is characteristic for early stages of the development. It includes focus on personal gain, abuse of power positions and hurting others. On more developed stages the need to protect oneself *and others* is acquired. This is what we call the *True Power*.

Working with our immature aggressive impulses we can refine them and convert to behaviors beneficial for individuals and the whole society.

Figure 1. is the visual amplification of some important characteristics of each stage. Also, it positions each stage regarding the intensity of the reaction and level of consciousness reached.

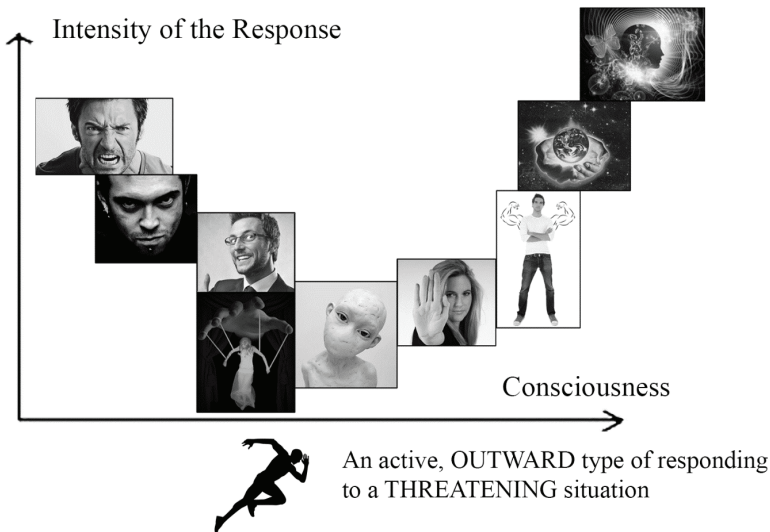


Figure 1. Agramsm stages

There are seven stages of agramm. Key characteristics of each are described below.

1. *Instinctive Aggression* is the most primitive form and it characterizes the least developed level of consciousness. If sensing the threat an individual responds as if it is the matter of life or death, bare survival and securing life. Reactions are rough and crude. Impulse discharge is direct without the possibility of postponement and consequences prediction.
2. *Destruction* is characterized by separation between emotions and thinking. Feeling of omnipotence, convulsive rage and blind passion are present. Magical reasoning creates false higher values, and the capacity to gain perspective of the other is absent. Personality dynamic and defensive mechanisms are very primitive (isolation, fusion, grandiosity, splitting). This stage is linked to pre-conventional morality.
3. *Manipulative Aggression* is the stage where control of intense aggressive impulses is starting to form. Thinking is abused and serves unconscious drives. Morality is lacking, there is no sense of personal responsibility, with a lot of shamelessness, lies and truth are equally treated, communication patterns are loud but focused, and discharge of aggressive impulse is superficial. Defense mechanisms are mostly neurotic (projection, identification with aggressor, manipulation).
4. *Passivity* reflects the maximum of control of aggressive impulse. It is difficult or impossible to feel anger. Thinking and feelings are restrained and expressed indirectly. Morality is conventional and conformist attitudes are often present.
5. *Assertiveness* is the first mature form of the outward interacting impulse. Personal attitudes and feelings are clearly stated but in a way not threatening to the other. Personal and the rights of the other are considered. Introspection and capacity to take the role of the other are developed. Morality is post-conventional.
6. *True Power* is the stage where aggression transforms and integrates with morality and purpose. Personality dynamic includes high level of individualization and commitment to higher values. Perception is clear and without filters. Ability to interconnect different ideas and their relations is advanced, as well as the capacities for synthesis, coordination and integration of concepts. The goal is to find the best solution for all the parties involved. Decision making and taking actions are often highly rewarding by themselves. Examples of individuals who achieved this stage are leaders who do not rule the people but serve them.
7. *Non-dual Power* is the state of unlimited love and power (mightiness). It is an experience of being one with everything that exists. Any conflict is impossible because there are no opposite sides to cause tension.

All of these mature stages can be achieved by persistent and diligent work on consciousness development.

The following example will illustrate the differences in response regarding different stages of aggression development (agrasm).

Imagine a person in his workplace. Half an hour before the end of working hours the superior approaches the person and instructs with an open and threatening sentence – Today you have to stay longer!

1. Instinctive aggression: Rejecting request by shouting and hitting the table with the fist.
2. Destruction: [with raised voice] Me? To stay longer? There's no way I'm staying overtime.
3. Manipulative aggression: Aw, you know, I have such a headache all day today. Suzy did not have much work today, she wouldn't mind staying longer instead of me.
4. Passivity: Accepting by nodding the head.
5. Assertiveness: Today is not very convenient for me, I made some plans after work. What exactly is it about?
6. True power: If there is not any other option, I will stay. But, I want you to know that under such circumstances our cooperation will not last much longer.
7. Non-dual power: A person at this stage of development has already passed through the previous ones, she quit her job with inadequate employer, and this situation will simply not happen to her.

There is a similarity between the description of the mature forms of agrasm and Steiner's concept of cooperative solution as a response beyond the power play interactions. Also, mature forms of agrasm share meaning with Steiner's *other side of the power*. There are seven sources of *the other side of power*: grounding, passion, control, love, communication, knowledge and transcendence (Steiner, 1987).

How Does the Mature Sense of Power Develop?

Psychotherapeutic process of Radix oriented Body Psychotherapy includes both aspects of human existence – psychological and physical (the body). Everything we feel (psychological level) has its material representation. All the psychological issues are represented by the chronic tensions in our tissues. Repressed emotions are literally trapped in our body. Specific combination of verbal and body work leads to the liberation of these tensions and the possibility to integrate physical and psychological (Klasic, 2004).

Retrieving the repressed content, chronic tensions of certain body parts are released enabling them to regain "communication" with the rest of the body. At the psychological level, this is experienced as an expansion of the inner world and as an increase of sense of wholeness. Also, the spectrum of emotions that can be experienced extends. The sense of freedom appears and awareness of different options become evident. One does not react automatically but regarding the present situation (Klasic, 2004). And this is precisely what leads to an increase in the experience of one's own strength and power. Connections within and between psychological and physical self grow stronger, which influence the experience of strength and basic trust that everything is and will be fine.

When we talk about retrieving repressed content and consciousness development, the focus is not on plane intellectual insight but on the live emotional experience. This is very important. It is essential for the repressed content or emotion to be relieved again. It is necessary for change to happen at the physical level, so that the muscles and tissues are released from tension. And this is why the “help” of the body is very important and precious (Klasic, 2004).

The other important element of successful practice, aside from reliving repressed content, is the necessity for the content to be integrated into the present experience of the self. For example, the repressed content could be the feeling of helplessness mixed with the fear of separation easily formed in childhood since children depend on adults a lot. During psychotherapeutic process a person relives this repressed fear with the experience that it originates in the past. At the same time the adult experience of not being helpless is present. Having these two experiences at the same time changes person’s perception of the self. The new experience prevails the old one. A person transitions from the *feeling of not having the choice* to the *feeling of having a choice* to act differently (McKenzie, 1999).

This process is gradual and respects existing resources of a person. Before facing an intense repressed content, it is necessary to achieve a certain level of body awareness, capacities for containing emotions and functional boundaries (McKenzie, 1999).

The role of the therapist is to cautiously and gently accompany the client, to provide a safe space in which the relationship of trust will be formed, to encourage and provide understanding and support, but also to maintain a balance between the discharge of repressed contents and the capacity of the person to contain and integrate them (Mandic, Klasic, Cvetkovic, 2015).

I would like to address one more thing regarding *Protection Model* mentioned earlier. There is the difference between the objective (external) degree of danger and the perceived subjective assessment of danger that a person makes (inner experience). Subjective assessment, in addition to objective elements, includes the experience of one’s own power and strength or the experience of being threaten. The less is the amount of repressed content, the subjective assessment gets closer the external conditions, and the number of situations perceived as threatening reduces. This could explain why during the process of consciousness development the focus on fighting and personal gain decreases, and the concern for the benefit of the others and the common interests increases. The more person is connected with its internal personal resources which are unlimited, the less it needs external resources that are limited and dependent on others. It seems that limited resources are the actual cause of various conflicts and the basis of conflict reduction is to be found in the development of internal unlimited recourses of an individual.

The aggression could be considered as a kind of unconscious abuse of the outward type of human responding or the abuse of one’s strength and power³.

³ Power in the constructive, not the destructive sense; power as capacity to create change or provide resistance acting in favor of the general good.

By reducing the amount of repressed unconscious content the *expansion of consciousness* happens which allows *the aggressive (destructive) impulse to be transformed*. Therefore, consciousness development is crucial to the process of building individual's mature sense of power.

Perspectives

At the end I would like to point out the possible ways of further research on this subject.

It would be interesting to explore connections between different stages of the agrasm spectrum and the locus of control, fear and perception of danger level. The locus of control might be important factor because it is related to the matter of differentiating between one's own responsibility and the responsibility of others. This differentiation makes maneuvers of imposing and manipulating more visible, and thus makes responding to power plays easier.

Is the internal locus of control associated with an exaggerated feeling of guilt making a person an easy target to some power plays (*It's all my fault, I deserve to be treated badly*)? Or is it associated with the feeling of omnipotence that leads to arrogance and the abuse of one's own power (*everything depends on me, so I can do whatever I want*)?

Does the external locus of control liberate an individual of the responsibility for abuse of his own power (*I can do everything, nothing depends on me*)? Or does it makes one feel helpless because nothing depends on him?

In other words, what is the nature of the relations between the stages of agrasm (consciousness development) and internal vs. external locus of control orientation?

Is there a connection between experiencing anger and experiencing guilt? And is it possible for guilt to be the natural mechanism of limiting one's own violent behavior towards others? The mechanism with both functional and deviant form.

What would happen with distribution of the intensity of fear⁴ regarding the level of consciousness reached? Would the curve be inverted comparing to the agrasm – less developed stages with lower intensity that is gradually rising and then at some point decreasing again at more developed stages (Figure 2)?

⁴ Fear as the inward directed experience while interacting in hostile situation.

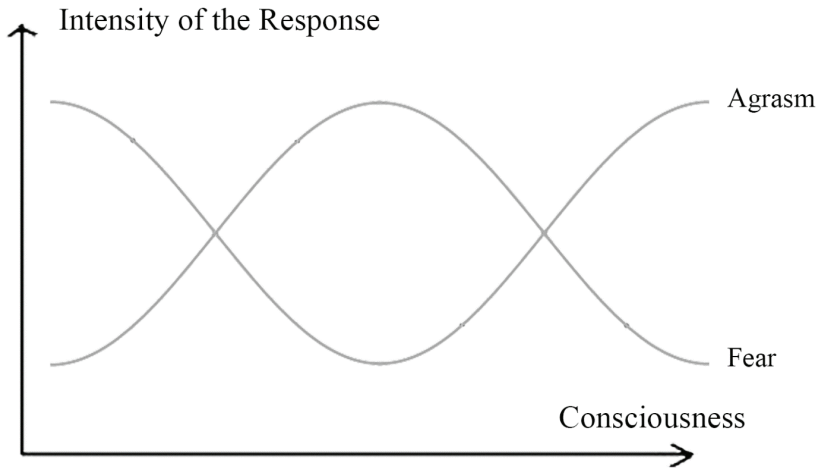


Figure 2. Agrasm and Fear

Can we link the process of consciousness development and intensifying the experience of one's own power with the parallel process which represents a decrease of perception of danger level influencing the assessment of favorability of the environment? In other words, does the consciousness expansion deactivates the Protection Model and activates the Risk Model?

Does all aggressive behavior has only the defensive function?

The answers to these questions could help answer the questions adduced at the beginning – who is and how much responsible in everyday life, and what is and how much in one's own power or in the power of the others?

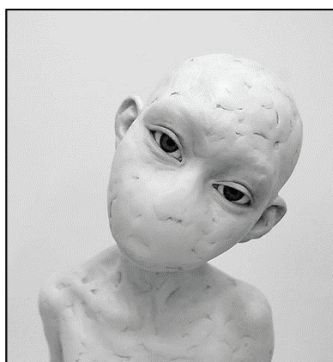
References

- Ekman P. & Friesen W. V. (2003). *Unmasking the Face*. Los Altos: Malor Books.
- Kelley, C. R. (1975). *Education in Feeling and Purpose*. Vancouver, USA: Charles Kelley.
- Klasic, Lj. (2004). *Body Psychotherapy*. Beograd: UTPJ.
- Klasic, Lj. (2007). From Aggression to Power. *Kelley-Radix Organization*.
- Klasic, Lj., Mandic, T. & Cvetkovic, A. (2015). Tepsyntesis Approach to the Trauma. *1st International Congress on Psychic Trauma: Prenatal, Perinatal & Postnatal Aspects (PTPPA2015) Belgrade*.
- Liss J. (2007). Steven Porges' Multiple Level Visceral Model. *Energy & Character: International Journal of Biosynthesis*, 36, 52-57.
- Mandic, T., Klasic, Lj. & Cvetkovic, A. (2015). Renegotiating of the Trauma. *1st International Congress on Psychic Trauma: Prenatal, Perinatal & Postnatal Aspects (PTPPA2015) Belgrade*.

- McKenzie, N. (1999, May). *The therapeutic goals and concepts of radix work*. Paper presented at Radix Conference, Florida, USA.
- Mukamel, R., Ekstrom, A. D., Kaplan, J., Iacoboni, M. & Fried, I. (2010). Single – Neuron Responses in Humans during Execution and Observation of Actions. *Current Biology*, 20, 750-756.
- Steiner, C. M. (2004). *The Other Side of Power*. Revised and updated online edition.
- Steiner, C. M. (1987). The Seven Sources of Power: An Alternative to Authority. *Transactional Analysis Journal*, 17, 102-104.

Acknowledgements

Figure 1. includes an image of The Islet of Asperger Type – IV (Detail) by Xooang Choi.



Ana Petrović

Univerzitet u Beogradu, Filozofski fakultet;

Tepsynthesis – Srpska škola telesne psihoterapije

AGRESIJA I MOĆ, UPOTREBA I ZLOUPOTREBA

Sažetak

Rad predstavlja prikaz fenomena moći i agresije iz ugla teorije i prakse transakcione analize i telesne psihoterapije Radiks orijentacije. U prvom delu bavimo se pitanjem šta se dešava među pojedincima – na koji način neki nameću svoju volju zloupotrebljavajući moć koju poseduju. Biće predstavljena klasifikacija igara moći i različiti načini kojima se na ove igre može odgovoriti. U drugom delu prikazano je šta se dešava u pojedincu – šta je ono što nekoga čini moćnim ili bespomoćnim. U radu sa ljudima se pokazalo da različita agresivna ponašanja predstavljaju tačke jednog šireg spektra – spektra agrazma (*the life expression in action*). To je aktivan, istupajući vid reagovanja na situaciju koja nas ugrožava i glavni je izvor moći svakog od nas. Teorija agrazma objašnjava kada je upotrebljen, a kada zloupotrebljen. Destruktivni fenomeni i potreba za kontrolom vezani su za niže stupnjeve razvoja. Na višim stupnjevima razvoja pojavljuje se potreba za zaštitom i sebe i drugih. Na

kraju, razmatramo kako se ovo polje može dalje istraživati i šta je moguće učiniti kako bi se pojedincu olakšao i poboljšao život.

Ključne reči: igre moći, bespomoćnost, agresija, teorija agrazma.

EMDR AND EMOTIONAL TRAUMA - A CHILD IN BATTLE WITH DISEASE AND MOCKERY: PRESENTATION OF A CASE

Abstract

Emotional traumas cause negative consequences like physical trauma. Many emotional shocks after fire, flood, earthquakes and car accident; robbery, torture, rape, assault, wounds from firearms and knives, and so on were investigated (Amen, 2006). Emotional traumas alter the function of the brain; it responds with abrupt activation of certain systems. The SPECT scans show that the limbic system, the circular fold, the basal ganglia, and the right temporal lobe become hyperactive. Stress hormone levels increase, affecting negatively brain functioning. Chronic or prolonged stress releases hormones destroying nerve cells of the hippocampus, one of the major memory centers in temporal fragments. The EMDR therapy is ranked the highest category of effectiveness by the American Psychiatric Association (2004), the American Psychological Association, and the Department of Veterans Affairs and Defense (2004). (Lipke, 2000) **Case Presentation:** A case of a 8 years old girl (M.) is presented. She has been diagnosed with childhood arthritis for three years. Treatment is conducted with Methylprednisolone, Beta blocker, Metrexate and other medications. Unfortunately, long-term intake of corticosteroids has damaged the liver, kidneys and the circulatory system, increased blood pressure and developed as a side-effect of the corticosteroid lunar face and significant weight gain, resulting in the appearance of stretch marks almost everywhere on the child's body. The mockery, with which M. has to deal in her everyday life, further complicates her condition as a result of multiple emotional traumas. After eight sessions of EMDR therapy we succeeded to reduce the anxiety and to improve the self-image and sense of self-control.

Key Words: EMDR therapy, child arthritis, emotional traumas, case presentation, stress

Introduction

According to Webster, trauma is formulated as a staggering experience that has a lasting effect on mental life. This can happen personally to an individual, or it can be an observation of how another person experiences a trauma. Trauma confuses the senses and the ability to cope. (McDonald & Johnston, 2012).

E.M.D.R. (eye movement desensitization and reprocessing) therapy is recommended as an effective treatment for post-traumatic stress disorder in the

¹ corresponding author inga_i@abv.bg

practice guidelines of a wide range of organizations, like the American Psychiatric Association (2004), the Department of Veterans Affairs and Department of Defense (2010), the International Society of Traumatic Stress Studies (2009) and other organizations worldwide, including in Britain, France, the Netherlands and Israel (Lipke, 2000).

According to Lipke – E.M.D.R. is the most effective method of treating the psychological effects of trauma. (Lipke, 2000).

Emotional traumas cause such negative effect on a person as physical trauma. During a research with a scanner we can see that the limbic system, the cingulate gyrus, the basal ganglia and the right temporal lobe become hyperactive. All brain systems go into “standby mode” for possible follow-up injuries (Amen, 2006).

People who have experienced emotional trauma sleep poorly, they constantly worry, suffer from mood swings, digestive disorders, motor overload symptoms such as headaches, muscle tension, and so on (Amen, 2006).

The hypothesis proposed by Francine Shapiro (author of the method) in 1989 is based on the theory of I. Pavlov (1927) on the cause of neurosis and the psychotherapeutic effect of its treatment. Shapiro, claims that the essence of each psychotherapeutic effect is the restoration of the equilibrium of excitation and suppression in the nervous system. This view coincides with the opinions of such authors as Freud (1953/1955) and Jane (1989/1973), as well as today’s specialists in the sphere of neurology and biochemistry (Watson et al., 1988; Krystal et al.), (Shapiro, 1998). The Rapid Processing of Information Model examines the majority of pathologies as a consequence of previous life experience creating a sustainable model of the affect, behavior, self-expression and the corresponding structure of personal identity. The pathological structure is rooted in static, inadequately processed information deferred in memory during the traumatic event. In the range of simple post-traumatic syndrome and phobia to more complex manifestations such as panic syndrome, some forms of depression, dissociative and personality disorders, pathology itself may be considered as a configuration arising from previous experience stored in the nervous system under a form determined by the state of experience (Shapiro, 1998).

The model of accelerated processing of information has as its basic idea the physiological self-healing. This idea is based on the analogy with the self-healing reaction of the body in physical trauma. Metaphorically speaking, the information processing mechanism may be considered as a process of metabolizing information so that it can be used to heal and improve the quality of life of the client (Shapiro, 1998).

The use of the E.M.D.R. can be fully compatible with most of the known psychological approaches. The importance of personal memories acquired in early childhood corresponds to the psychodynamic model (Freud, 1900-1953; Jung, 1916), while at the same time concentrating attention on existing dysfunctional reactions and behaviors fully corresponds to the paradigm of conditioning and generalization in classical behaviorism (Salter, 1961; Wolpe, 1991).

In addition, the E.M.D.R. technique is centered on the client (Rogers, 1951), the approach addresses the concept of positive and negative self-assessment - a concept firmly rooted in cognitive psychotherapy (Ellis, 1962), while the emphasis on the physical reactions of the client is related to the existing dysfunctional manifestations (Lang, 1979), and is an important element in the full-scale psychotherapeutic use of this technique (Shapiro, 1998).

Biochemical approaches to the hypothesis that the post-traumatic syndrome results from a stress-induced biochemical change in the central nervous system (CNS) (Christi & Chester 1982) and theories suggesting that physiological changes lead to increased excitability and sensitivity in the victims of post-traumatic syndrome (Kolb, 1987) fully agree with the accelerated processing of information according to which physiological blockade of processing is responsible for pathological manifestations and rapid and positive the results of E.M.D.R. psychotherapies derive from electro and biochemical alterations restoring the balance in the natural physiological system intended to assimilate the traumatic event (Shapiro, 1998).

Clinical observations show that such a process of treatment can occur not only in eye movement, as with E.M.D.R., but also with other external irritants such as tapping on the palms of the patient, blinking light or hearing irritants. (Shapiro, F.,1993), (Shapiro, F.,1998) Although initially the EMDR technique did not have any theoretical basis beneath it, it was further discovered that it was possible to establish a link between the effects of EMDR and also such effects in a stage of sleep accompanying rapid eye movements - RIM (Neilsen, 1991; Shapiro, 1989a, 1989b). A number of studies have shown that information processing, including emotionally related to stress and survival problems, has become in a stage of sleep accompanying rapid eye movements - RIM (Greenber at al. 1992). Recent studies (Hong et al. 1992) related to sleep behavior confirm the hypothesis EMDR / RIM. It is noted that the amount of RIM is related to the intensity of the emotional state. Moreover, the relationship between RIM and therefore eye movement and cognitive processes is also confirmed in a number of other studies (Karni at al. 1992), showing the relationship between learning new material and continuous RIM (Shapiro, 1998).

EMDR is a sufficiently complex psychotherapeutic influence on all aspects of memories and dysfunctionality, leading to the generalization of positive effects. Every session of EMDR psychotherapy involves work with negative and positive self-determination, somatic manifestations, problems of self-control and self-esteem, and so much else. (Shapiro, 1998).

It can be assumed that the rapid occurrence of a psychotherapeutic effect is associated with a hypnotic suggestion. However, the EMDR and hypnosis vary considerably. The electroencephalogram performed during the EMDR, demonstrating that brain rhythm patterns are not distinguished from normal wake-up (Nicosia, in press) norms, at the same time for patients in a hypnotic state, assumed to be a normal theta - rhythm (Sabourin at al.1990), beta

(DePascalis & Penna, 1990) or alpha-rhythm (Meares, 1960). Thus, according to electroencephalographic data, it can be assumed that the EMDR client is not in a hypnotic state (Shapiro, F1998).

Recent studies have shown that there is a direct correlation between the intensity of a negative effect in dreams and the amount of rapid eye movements during the RIM phase (Hong et al., 1992). In the field of neurology, there have been investigations according to which the RIM function consists in processing and storing the information in memory (Sutton at al.), (Shapiro, F. 1998).

Studies conducted among EMDR patients using quantitative analysis and electroencephalography methods have shown normalization of the synchronicity of retardation of the two hemispheres of the brain (Nicosia, 1994). It is reported that the connection between the brain hemisphere is disturbed by suppressing the RIM sleep caused by norepinephrine produced during the trauma. Such asynchrony in the hemisphere work prevents the integrative processes of memory. The author suggests that the movement of the eyes during the EMDR restores the synchronicity of the hemisphere due to its rhythm and repeatability, which activates the rhythm control mechanism in the cortex of the brain, the work of which was suppressed during the trauma (Shapiro, 1998).

AIM

The aim of this study is to present a case of a child suffering from childhood arthritis, subjected to constant mockery by kids at school, who with the help of eight EMDR therapy sessions succeeds in overcoming the anxiety, trauma of insults and to raise her self-esteem.

Method

EMDR is part of an integrated treatment approach and is often used in conjunction with other therapy practices such as play and art therapy, talk therapy, behavior therapy, and family therapy. EMDR helps process the troubling thoughts, feelings, and memories so that children can return to their normal developmental tasks and prior levels of coping. EMDR is being used with other childhood problems that are not caused by trauma, such as attention deficits (AD/HD), anxiety and depressive disorders. EMDR can also help to strengthen feelings of confidence, calmness and mastery (Heiman et al.,2009).

This method was used in a 8 years old girl (M) who came to my private practice office with her mother. For 3 year she had a diagnose child arthritis. The treatment was made with Methylpednisolon, Urbazon, Beta Blocker, Methorexate, etc. Regretfully the prolonged treatment with Corticosteroids has impaired his liver, kidneys and blood system, raised her blood pressure and as side effect of the use

of Corticosteroids has developed moon-shaped face and gained weight which had led to stretch lines everywhere on the child's body.

The mother told me that there is something in the child's life which always causes one and the same type of reaction. When M understands that her relatives quarrel her temperature raises and very often this end up in a hospital. She also said that M suffers from the attitude of the kids at school which make fun of her all the time. She clings to her mother and is against her having personal life (boyfriend). Following one of the regular heavy crises which the child goes through late at night she said: "Mammy you are the only one that loves me, you are the only one I feel secure with and the only one that gives me love, everybody else makes fun of me"

EMDR therapy has been adapted and modified for children and has been used world wide to help them over the last 10 years. There are hundreds of case study reporting on the positive effects of EMDR with children. Positive outcomes in the Oklahoma bombing, Hurricane Andrew, Hurricane Iniki, the shootings in Jonesboro, Arkansas are just a few examples of EMDR being successfully used with children. Case reports with children have been consistent with research findings using EMDR with adults. As with many other treatment modalities, scientific controlled outcome studies on child therapy have lagged behind clinical case reports. To date, the research studies conducted on using EMDR with children, have showed positive results, including achieving a positive outcome where previous treatment had failed (Chemtob et al. 2002).

Results

My first meeting with M passes in the form of a conversation where I understand

- which are her strong points (mathematics, drawing, she loves Whinny the Pooh, Pippi Longstocking, etc.)
- which are her faults ('I sometimes think that I am very boring when I grumble, I'm terribly boring', 'I bite my nails when I'm stressed')
- does she have any friends – only one friend and Vikki (her cousin and)
- favorite broadcasts – *CSI* and other crime stories, loves watching medical operations. M loves films about magicians and wizards.

We talk about the weak points when she says:

- When two persons quarrel I turn on the mechanisms and get sick. I ask her
- What do you want to happen?
- I want to stop raising my temperature when people are quarrelling. Mother and grandmother sometimes go to extremes. Grandmother makes me feel guilty, she manipulates me. She adds
- Wherever I get undressed I leave my clothes there. I want to change this!

Our first meeting ends and M has as homework to think and describe:

1. My dreams
2. The strong points of Pippi Longstocking (her favorite heroine)

The second and third meetings pass in gathering additional information that comes out of the discussion of the homework and our engagements with art therapy. The main accent is the lack of self-confidence and her suffering from the numerous ridicules at school.

Fourth meeting M is very upset and tells me "I have this horrible fear – Yasin". She is very excited and speaks quickly "Terrible Yasin! Horrible! Stupid, nasty. He hit me in the stomach! He told me that I was fat and ugly!" I ask her to tell me in more details and now a wave of anger overwhelms her, of injury, pain. "He told me that I was a faggot, that I'm not a girl and hit me in the stomach. I tell her "Now together we shall do a special exercise "The hug of a butterfly" (kinesthetic EMDR). I explain to her how exactly to do it and ask her to remember Yasin's words and how he hit her. I ask her when she is ready with the image to nod, soon she makes the exercise and I ask her to hold all the hate, pain, anger and injury which she feels and to do what I am doing. After some time I stop and ask her to draw what she feels at the moment. She does that immediately and with pleasure:



Figure 1 She wrote 'I HATE YOU'
Hold that feeling and let's do it (The hug of the butterfly)



Figure 2 She wrote "I HATE YOU EVEN MORE"
Please, draw what is happening. OK, hold the picture and all the feelings that you have and we continue with the 'Butterfly'



Figure 3 She wrote 'I HATE YOU EVEN MORE, YOU ARE DISGUSTING'

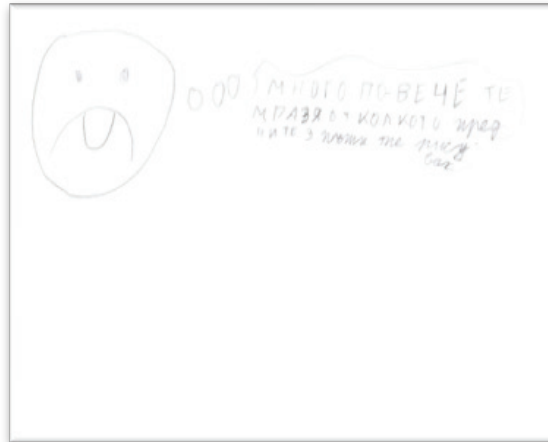


Figure 4 She wrote 'I HATE YOU MUCH MORE THAN THE PREVIOUS 3 TIMES I SWORE AT YOU'

I notice that she is very excited and angry and that is why decided to combine EMDR with visualization and relaxation.

I tell her:

- Take a deep breath and put your hands up as if though you are a tree. I am a pine-tree, what kind of tree are you?
- An apple tree.
- Are there any apples on the tree?
- Yes, but none for Yasin.
- What color are the apples?
- Red.
- Pick one and feel the aroma of the apple.
- I feel it.
- Take a bite.
- I don't feel like it.
- What do you want to eat?
- Pumpkin.
- How do you like it – boiled or roasted?
- Boiled with sugar.
- Now, imagine an orange boiled pumpkin, feel how it smells and imagine that you are taking a bite.
- It's tasty...!
- Now, let's continue with Yasin and your feelings for him.
- I will always hate him!

OK, close your eyes and hold that hate. Let's do the 'Butterfly'. We start. Imagine that you have a magic wand. You jump on the broom. You are a little magician and you fly to school. There you meet Yasin. She concentrates and says

while we are working:

- I have a magic wand.
- How does it look?
- Long with a star at the end.
- What color?
- Yellow.
- Continue with the wings of the butterfly as if though it touches you.

Suddenly she says:

- I'll turn him into a frog.
- You can turn him into anything you want.
- His face looks like a frog. I'll turn him into a frog.
- How big?
- Small one.
- Will manage to catch him?
- No. I'll put jars everywhere and he will fall into one of them. Then I'll close it.
- What's happening?
- I caught it. I'll let it die in the jar and then I'll throw it.
- What are you doing now?
- I'm throwing it into the river.
- How does the river look – green, blue, gray?
- Blue, but the bottle flows down the river.

We finish with the "Hug of the Butterfly" and I ask her to draw how she is feeling now.



Figure 5 She wrote 1. HA-HA-HA YOU ARE A FROG 2. HA-HA-HA-HA-HA.

Yasin, that has tormented M and about whom I knew also from her mother has disappeared as presence and as a factor causing discomfort. His name was not mentioned even once.

A week following our third meeting was the **fourth meeting** with M. In the mean time following the next time she swelled from withholding water M is again in the pediatric ward of the hospital. They have to make injections and to put her on a dropper. Regretfully the nurse a number of times could not do her job professionally and has to punch her over 10 times. The hands and legs of the child are all blue and she feels strong pain and hate towards that particular nurse.

M is red with anger at the incompetence of the nurse, swinging her hands and making different jests while she tells me what has happened. And her hands are the true proof of her words.

I suggest:

- Let's do the "Hug of the Butterfly" with her light and tender wings it will help you to overcome your pain – I tell her. The child readily agrees. We start together simultaneously. Her eyes are closed but somehow she manages to fall exactly into my rhythm. Following some time I tell her:
- Open your eyes stretch your hands and draw what you feel towards this nurse, what you feel deep down in your heart? Before her there is paint for finger painting as well as other materials for drawing but she goes for the finger paint and starts quickly to draw many dots. After she finishes I ask her:
- What have you drawn?
- My hate towards the nurse.
- What does that hate looks like?
- It looks like mixed dish of vegetables. Mixture of vegetables. This reminds me of the nurse.



Figure 6 The dots are of different colors

- OK hold the picture of this mixture of vegetables and feelings which you feel and let's again do the "Butterfly". We start but this time M has

not closed her eyes but is concentrating on the drawing while we are working. Following some time I tell her to stop and to draw what is happening with her, her feelings. After she is ready, I ask her:

- Tell me something about your drawing.
- This is a restriction order for the nurse; she should not come any closer to me than 10 meters.

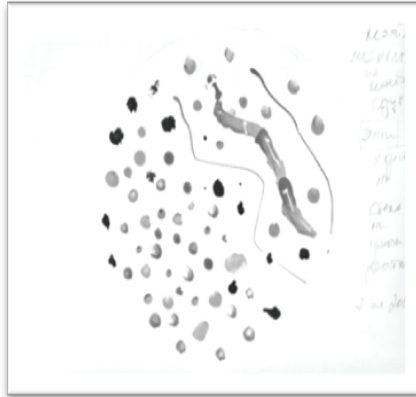


Figure 7 She wrote "RESTRICTION ORDER"

- Close your eyes and hold that feeling. We do bilateral audio simulations. Now open your eyes and draw what is happening. What have you drawn? This is the mandala of my heart (we have already worked with mandala and she knows what this is).

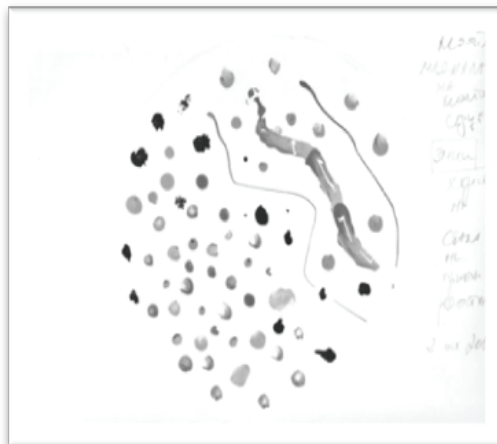


Figure 8 It is written "MY MANDALA OF MY HEART"

- What is this on the right side of the mandala?
- Snakes, I like them!
- What do you feel when you look at them?
- I feel nicely, happy
- Concentrate on that feeling and close your eyes. Hold this. Then follows bilateral audio simulation. Open your eyes and draw what is happening.

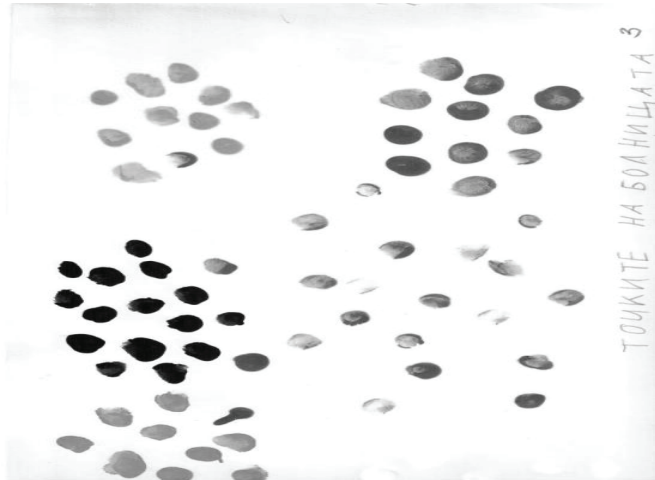


Figure 9 Named 'THE DOTS OF THE HOSPITAL' Now dots are grouped by color

Fifth Meeting. This week M also had some unpleasant experience. She quarreled with her grandmother about watching television and M shouted at her. Her grandmother was very angry and at that moment she was preparing supper and was holding a knife in her hand. Shouting she pointed the knife at the child and started to shake up and down as if it was a finger pointed at M. The child was surprised, frightened and in the same time angry by this behavior. EMDR therapy was again combined with creative alternatives as drawing to help M. overcome the upsetting situation. Several drawings were created by M. until it finally came to a satisfying and reassuring drawing that ended the session.

Sixth meeting. M enters my cabinet and she is not her lively self.

- What's happening – I ask her
- This week I had a very nasty experience in the dining room of the school during lunch.
- Tell me what happened.
- I cued on the line for food and when it was my turn I took some food and stewed fruit. As I was walking with the tray four boys, older than me, started to make fun of me. They told me I was fat and a gnome and have I ever looked in the mirror and such things.

There is no trace of the former anger with which she told such stories.

- What did you feel when they did those things to you?

- On one hand I was sad but on the other – very angry. Mainly I was angry. I wanted to take the boys by the ears and throw them out of the school; I couldn't have proper lunch that day.
- Let us now do the "Hug of the butterfly" and while we are doing it do not stop thinking about what has happened during lunch and how you felt at that time. Let's start. We work for a while and I tell her to stop.
- M use any material you wish in order to tell me how you feel. She reaches out for the plasticine and the colored paper.

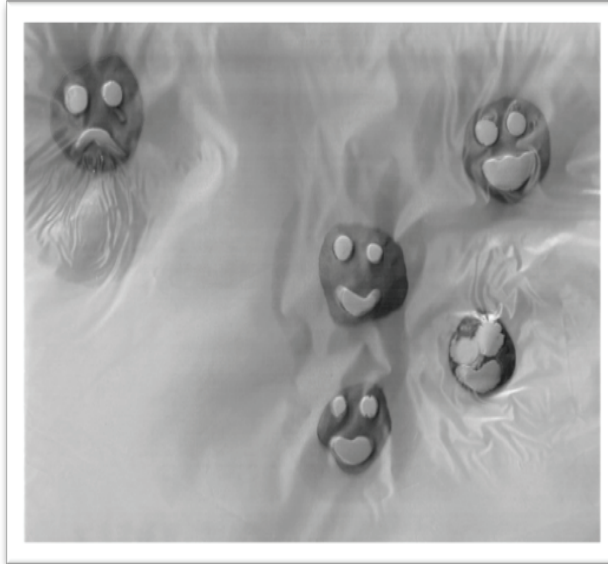


Figure 10 Application

- Tell me something about these faces?
- The sad one is me while those four are those impudent that tormented me and made fun of me.
- OK, hold the sadness that you feel and the impudent faces of these hooligans. Then followed bilateral audio simulation during which she constantly looks at Application 10.

Let us now see what is happening. She again reaches for the plasticine and makes



Figure 11 Application

She has written down the Bulgarian proverb “The one who laughs last laughs the best way”

- Tell me what are these things here?
- Well, who laughs last laughs the best way. I took some ice from my laboratory and now you cannot see them nor hear them.
- Where are they?
- Over there, like small candy frozen in the ice-cube.

She starts to stretch and yawns and she says:

- I’m very sleepy, I want to sleep!

I decided that for this meeting the work with EMDR is enough and that the pain from the mockery is frozen together with the candy. We continue with visualization so that she can rest and when her mother comes to take her to be in a lively mood.

Again in the **seventh meeting** we have to work with the intruder that has harassed the child. His words forced M to cry in the evening and her mother specially called me to warn me about this incident. The Self place of M, was an escape route when the processing becomes too difficult and act as a store of containment that eases the processing.

In this session M helped a lot her laboratory in which she produced ice in which she froze the negative emotions and the people who were hurting her.

Meeting eight. M’s mother calls me a few days before the session to warn me that M has had nightmares and still could not free herself from them.

Up to now I have not used on M bilateral simulation with the help of the eyes. The child has serious problems with them, one of which is lack of peripheral

vision. Quite on purpose I had not used this in our work. I decide to carefully try it and to stop the moment that I notice some discomfort. For my work with children I have sticks with different heroes from fairy-tales from which they can choose according to their taste for eye stimulation. This reinforces their interest and gives them the feeling that their opinion counts I ask her to imagine what happens during the nightmare.

- M please hold the picture as you see it and feel it at the moment. Follow the movement of the stick. When we finish I ask her:
- What happened?
- I want to take it away, to throw it out and not to think about it. She reaches for a piece of paper and starts to draw.



Figure 12

(One can be impressed by the fact that regardless of the unpleasant emotion that the child is feeling in the first drawing the face is smiling, even with a stuck out tongue).

Would you like to share something with me?

- I don't want to.
- Good, hold this wish of yours to take the cat and put it away and not to think about it and we start. When we finish I ask her to tell me what has happened with the cat.
- I have kicked it out now! She takes a piece of paper and draws.



Figure 13

- Look close at what you have drawn and let us work a bit more. We finish and I ask her:
- Do you want to tell me something? Instead of answering she takes a piece of paper and draws.

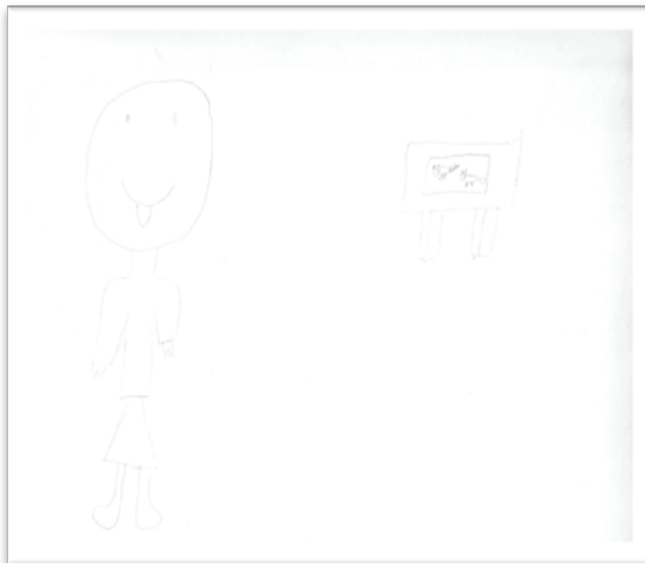


Figure 14

- Tell me something about this painting.
- This is a cake with dogs.

- What cake? She explains to me and I understand that this is a cake decorated with figures of dogs out of sugar on top.
- Well, Vikki (her cousin who is 6 years old) on his birthday ate the head of one of the dogs (my) – she laughs.
- Please, hold this memory and follow the movement with your eyes. We finish and I ask her to tell me if anything in the picture has changed.
- Yes, I am chasing Vikki to tickle him. And she starts to draw.



Figure 15

In this session I decide to repeat the test for defining the level of self-evaluation which was made in the beginning. The results are obvious. In the beginning she had placed herself below middle level. Now the result was the most adequate possible evaluation for a child her age. This is the end of session eight. M goes home in a very good mood.

Our work with M was terminated because the child left for Germany with her mother, In Bulgaria the treatment did not go that successfully and the mother went to all efforts to study and treat M in Germany.

Discussion

The results showed reduced anxiety, and improved self-image and a sense of self-control - after eight sessions of EMDR therapy.

This results is close to that obtained by R. Barker and S. Barker, who reported reduced presentation anxiety and improved communication performance following three sessions of EMDR. (Barker & Barker, 2007)

At the end of the therapeutic process separation anxiety of M decreased and her self-evaluation increased, which was confirmed by the tests. At school the teachers of M. were impressed by the fact that the child is not that tense and is calmer.

Meta-analysis showed that fewer sessions (3 - 8) of EMDR, as the case of M (8 sessions) were associated with better treatment outcome, which could be considered in line with the efficiency principle of incremental efficacy. It is not clear; however, which factors underlie the association between the fewer sessions and the greater treatment effectiveness, and subsequently if fewer sessions are causally related to more positive treatment outcomes. The association, for example, might reflect that children with less deeply engraved trauma respond faster to EMDR (Rodenburg et al., 2009)

Brurit Laub, has developed a procedure which she calls "Resource Connection". In her model, there is an unconscious connection to unique resources that exactly suit the needs of the patient at the specific moment. (Laub, 2001)

Barbara Wizansky in her article describe the positive outcome from Resource Connection through case of anxious, frightened little boy, refusing to separate from his mother and stuck perseveratively to the topic of dinosaurs, who successfully processes the fear of dinosaurs and the darkness (Wizansky, 2004)

M. repeatedly uses her Resource Connection during the therapeutic work. The imagination of M. created laboratory as protected and self place which was an invisible for the others room where there is a cupboard with different magic powders and ointments and also a laboratory. In this laboratory she decided to produce ice in which to freeze everything that causes her emotional discomfort. These positive images, thoughts and feelings are then combined with eye movements or other forms of Dual Attention Stimulation (DAS). Creative alternatives have been developed for children that incorporate DAS, through the use of puppets, stories, dance, art, and even swimming. (Greenwald, 1999) Bilateral eye stimulation was used only once during the last eighth session of the therapeutical work as the child has serious problems with eyes, one of which is lack of peripheral vision. With M. mainly was used audio and kinesthetic bilateral stimulation with creative alternatives.

At the beginning of the therapeutic work M. had not mentioned fear of sleeping in the dark, but in session seventh she shared that has overcome the fear of sleeping alone in the dark.

Klaff, (1995) discusses the usefulness of EMDR in the treatment of children's fears and phobias. The author reported a successful one session treatment of an otherwise healthy 6 year old girl who had fears of the dark and had slept in her parent's bed for years.

According to Stephen Thaxton traumatized children are stunted in their emotions, cognitions, and attachments. EMDR allows children to diminish trauma and improve these synaptic deficits (Thaxton, 2011). The disease and mockery which have leaved their traumatic mark on the psychics of M. were gradually

processed through EMDR sessions. Increase psychological level of comfort, stabilization and integration of ego state were the benefits for M. as result of therapy.

Conclusion

Any positive psychotherapeutic effect is a result of the interaction between the psychotherapist, the method and the patient. With the method of EMDR therapy combined with artistic self-expression, the problems declared by the mother of M were overcome one by one. M understood that raising the temperature as a way to attract attention and to unite the family is not an appropriate strategy to deal with and is only the way further complication of her health problem. The mockery of the kids at school continued, but her attitude was transformed into self-preservation and emotionally distant dealing as a result of increased self-esteem and reduced state of anxiety.

In the case of M, the imagination was used to reinforce the involvement of the child in the processing of traumatic experiences. Very often in EMDR therapy children speak not by words but by symbols that appear on a sheet of paper in the sand box or in the form of a sculpture of different material. The results of this clinical case are largely due to the child's awareness of her own problems, their clear formulation and the desire for change stated in the first meeting with the psychologist.

EMDR therapy combined with artistic self-expression helped M, her negative self-determination formed by the disease and mockery transformed into a positive self-image and a sense of self-control.

References

- Amen, G. D. (2005). *Making a good brain great*. New York: Three Rivers Press.
- Barker & Barker, (2007), "*The Use of EMDR in Reducing Presentation Anxiety, A Case Study*"
Retrieved from <https://www.researchgate.net/publication/233545737>
- Chemtob et al. (2002). Brief treatment for elementary school children with disaster-related posttraumatic stress disorder: A field study. *Journal of Clinical Psychology*, 58, 99-112. Ass
- Christi & Chesher (1982). Physical dependence on physiologically released endogenous opiates. *Life Science*, 30, 1173-1177.
- DePascalis & Penna, (1990). 40 hz EEG activity during hypnotic induction and hypnotic testing. *International Journal of Clinical and Experimental Hypnosis*, 38, 125-138.
- Ellis, A. (1962). *Reason and emotion in psychotherapy*. Secaucus, NJ: Citadel. EMDR Humanitarian Assistance Programs (2001). Lightstream Technique.

- Freud, S. S. (1964) Moses and monotheism. In J. Strachey (Ed.&Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 23). London: Hogarth Press. (Original work published 1939)
- Greenwald, R. (1999). *Eye movement desensitization and reprocessing (EMDR) in child and adolescent psychotherapy*. Northvale, NJ: Jason Aronson Inc.
- (Greenwald, 1999)
- Greenberg et al. (1992). A researchbased reconsideration of the psychoanalytic theory of dreaming. *Journal of the American Psychoanalytic Association*, 40, 531–550.
- Heiman et al., (2009), *EMDR & CHILDREN A GUIDE FOR PARENTS, PROFESSIONALS & OTHERS WHO CARE ABOUT CHILDREN*, *EMDR International Association*
- Hong et al. (1992). Correlation of rapid eye movement density with dream report length and not with movements in the dream: Evidence against the scanning hypothesis. *Annual Meeting Abstracts, Association of Professional Sleep Societies*, Poster #12.
- Janet M.F.P. (1973). *L'Automatisme psychologique*. Paris: Société Pierre Janet. (Original work published 1889)
- Laub, B. (2001). The healing power of resource connection in the standard EMDR protocol. *EMDRIA Newsletter*, 6 (Special Edition), 21-27
- Lang, J. (1979). A bioinformational theory of emotional imagery. *Psychophysiology*, 16, 495–512.
- Lipke, J. H. (2000). *EMDR and psychotherapy integration : theoretical and clinical suggestions with focus on traumatic stress*. New York: CRC Press LLC.
- Karni et al. (1992). Nodreams, no memory: The effect of REM sleep deprivation on learning a new perceptual skill. *Society for Neuroscience Abstracts*, 18, 387.
- Klaff, R. (1995). Treatment of children's fears with EMDR. *Presentation at the EMDR Network Conference*, Santa Monica, CA, Retrived from <https://emdria.omeka.net/items/show/15927>
- Krystal et al. (1989). Neurobiological aspects of PTSD: Review of clinical and preclinical studies. *Behavior Therapy*, 20, 177–198.
- Kolb, L. C. (1987). Neurophysiological hypothesis explaining posttraumatic stress disorder. *American Journal of Psychiatry*, 144, 989–995.
- McDonald & Johnston (2012). *Christ-Centered Visualization and EMDR in Healing Trauma*. Retrived November 25, 2018 from the World Wide Web <https://victormarx.com/wp-content/uploads/2012/11/Christ-Centered-Visualization-and-EMDR-in-Healing-Trauma-final.pdf>
- Nicosia, G. (1995). Brief note: EMDR is not hypnosis: EEG evidence. *Dissociation*, 3, 65.
- Neilsen, T. (1991). Affect desensitization: A possible function of REMs in both waking and sleeping states. *Sleep Research*, 20, 10.
- Rodenburg et al., (2009) , Efficacy of EMDR in children: A meta-analysis , *Clinical Psychology Review* , 599–606
- Rogers, C. R. (1951). *Client-centered therapy*. Boston: Houghton Mifflin.
- Sabourin et al. (1990). EEG correlates of hypnotic susceptibility and hypnotic trance: Spectral analysis and coherence. *International Journal of Psychophysiology*, 10, 125–142.

- Salter, A. (1961). *Conditioned reflex therapy*. New York: Capricorn.
- Shapiro, F. (1998). Background. *Eye Movement Desensitization And Reprocessing (EMDR). (Basic Principles, Protocols, and Procedures (23-27)*. Moskva: Nezavisimaia firma - Klas.
- Shapiro, F. (1998). Adaptive Information Processing: The Model as a Working Hypothesis. *Eye Movement Desensitization And Reprocessing (EMDR). (Basic Principles, Protocols, and Procedures (39)*. Moskva: Nezavisimaia firma - Klas.
- Shapiro, F. (1998). Adaptive Information Processing: Theory, Research, and Clinical Implications. Theoretical Explanations. *Eye Movement Desensitization And Reprocessing (EMDR). (Basic Principles, Protocols, and Procedures (315-316)*. Moskva: Nezavisimaia firma - Klas.
- Shapiro, F. (2012). *The Evidence on E.M.D.R.* Retrived November 11, 2018 from the World Wide Web https://consults.blogs.nytimes.com/2012/03/02/the-evidence-on-e-m-d-r/?_r=0
- Shapiro, F. (1989a). Efficacy of the eye movement desensitization procedure in the treatment of traumatic memories. *Journal of Traumatic Stress Studies, 2*, 199–223.
- Shapiro, F. (1989b). Eye movement desensitization: A new treatment for posttraumatic stress disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 20*, 211–217.
- Shapiro, F. (1993). Eye movement desensitization and reprocessing (EMDR) in 1992. *Journal of Traumatic Stress, 6*, 417–421.
- Shapiro, F. (1998). Eye movement desensitization and reprocessing (EMDR): Historical context, recent research, and future directions. In L. Vander creek & T. Jackson (Eds.) *Innovations in clinical practice: A source book* (Vol. 16). Sarasota, FL: Professional Resources Press.
- Sutton at al. (1992). Modeling states of waking and sleeping. *Psychiatric Annals, 22*, 137–143.
- Thaxton S. (2011), *Counseling Traumatized Children; EMDR and Play Therapy*, American Counseling Association https://www.mentalhealthacademy.com.au/.../international_pla...
- Watson at al. (1988). The neuropsychiatry of post-traumatic stress disorder. *British Journal of Psychiatry, 152*, 164–173.
- Wizansky B. (2004) *Resource Connection in the EMDR work with children*, Retrived from <https://www.emdr.org.il/wpcontent/uploads/2018/05/rc-children-eng.pdf>
- Wolpe, J. (1990). *The practice of behavior therapy* (4th ed.). New York: Pergamon Press.

Ingrid Kalinova Isinova

Sofia University "St. Kliment Ohridski"; Mediva Clinic, Sofia

EMDR I EMOCIONALNA TRAUMA - DETE U BORBI SA BOLEŠĆU I PODSMEHOM: PREDSTAVLJANJE SLUČAJA

Sažetak

Emocionalne traume uzrokuju negativne posledice poput fizičke traume. Istraženi su mnogi emotivni šokovi nakon požara, poplave, zemljotresa i saobraćajne nesreće, pljačke, mučenja, silovanja, napadi, rane od vatrenog oružja i noževa (Amen, 2006). Emocionalne traume menjaju funkciju mozga; on reaguje naglom aktiviranjem određenih sistema. SPECT skeniranja pokazuju da limbički sistem, kružni nabor, bazalne ganglije i desni temporalni režanj postaju hiperaktivni. Nivo hormona stresa se povećava, što utiče negativno na rad mozga. Hronični ili dugotrajni stres oslobađa hormone koji uništavaju nervne ćelije hipokampusa, jednog od glavnih memorijskih centara u temporalnim fragmentima. EMDR terapija je svrstana u najvišu kategoriju delotvornosti od strane Američkog psihijatrijskog udruženja (2004), Američkog psihološkog udruženja i Odeljenja za boračka pitanja i odbranu (2004). (Lipke, 2000) Prezentacija slučaja: Predstavljen je slučaj osmogodišnje devojčice (M.). Već tri godine dijagnostifikovan joj je dečiji artritis. Lečenje se sprovodi metilprednizolonom, beta beta blokatorom, metreksatom i drugim lekovima. Nažalost, dugotrajni unos kortikosteroida oštetio je jetru, bubrege i krvni sistem, povisio krvni pritisak i razvio se kao sporedni efekat kortikosteroidnog lunarnog lica i značajno povećao težinu, što je rezultiralo pojavom strija gotovo svuda na dečije telo. Ruganje s kojim se M. mora suočiti u svom svakodnevnom životu dodatno usložnjava njeno stanje kao rezultat višestrukih emocionalnih trauma. Nakon osam sesija EMDR terapije, uspeali smo da umanjimo anksioznost i poboljšamo samopouzdanje i osećaj samokontrole

Cljučne reči: EMDR terapija, dečiji artritis, emocionalna trauma, prikaz slučaja, stres

ACTIVATION OF ATTACHMENT SYSTEM AND ATTACHMENT STABILITY IN STRESSFUL SITUATION

Abstract

The aim of this study was to examine the attachment stability in a stressful situation that activate the attachment system. We created an experimental story which involved the participants in a stressful situation. The main goal of the story was to activate the attachment system. Stability of attachment was measured with Relationship Questionnaire (Bartholomew & Horowitz, 1991) before and SM-ECR-R (Hanak & Dimitrijevic, 2013) after the stressful situation. The sample consisted of 100 female participants, mean age 20.83. The results indicated a fair agreement between attachment patterns before and after the stressful situation, when the cluster analysis as a method of pattern extraction from SM-ECR-R were used ($\kappa = .212$, $p = .000$). Attachment patterns extracted from SM-ECR-R with classical extraction method showed slightly more agreement with the initial RQ patterns ($\kappa = .372$, $p = .000$). Moderate and high correlations between anxiety dimension and model of self ($r = -.544$, $p = .000$), and between avoidance dimension and model of others ($r = -.627$, $p = .000$) indicate that stressful situation isn't causing that strong attachment change as it seems from the previous analysis. These results probably were masked by group membership. The results also indicate a higher theoretical and empirical justification for using classical extraction of attachment patterns from the SM-ECR-R Questionnaire.

Key words: attachment system activation, attachment stability, stressful situation, experimental study

Introduction

Attachment is a specific relationship developed between the child and his caregivers in early childhood. The aim of this relationship is child protection, safety and appeasement. The main source of every individual difference in attachment system functioning is quality of interactions with caregivers. Thanks to these interactions we create the picture about ourselves and pictures about others. Model of self is picture of us as a more or less worthy of love and care. Model of others are pictures about others as more or less available and sensitive to our needs. As a result of the combination of these two models, we get four attachment patterns: one secure and three insecure (dismissing, preoccupied and fearful). Our attachment system will be activated every time when threats

¹ corresponding author anja_erakovic@hotmail.com

from the environment endangers our survival (Bowlby, 1982), also it can be activated with some circumstances that are not dangerous themselves, but they increase the probability of danger (Bowlby, 1973). Attachment system activation is a very interesting topic, nowadays we know a lot about it. However, we cannot say with certainty what is exactly happening with attachment when we really are in a situation we participate as a threat. Considering that our judgement of attachment, when this system is not active, represents just an idea of our reactions in a moment of real threat. Is our estimation of attachment before and after the stressful situation the same? How well we know ourselves? How well we know attachment?

Attachment stability

The theory and research show that once created attachment patterns used to stay relatively stable across the lifespan (Allen, McElhaney, Kuperminc, & Jodl, 2004; Ammaniti, Van Ijzendoorn, Speranza, & Tambelli, 2000; Bowlby, 1982; Consedine & Magai, 2006; Fraley, 2002; Fraley, Waller, & Brennan, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000; Zimmermann & Becker-Stoll, 2002). This is happening because we put an effort to interpret and understand the world around us in accordance to modal of self and others we have (Collins, Guichard, Ford, & Feeney, 2004). On this way the whole system strives to keep its original quality of attachment.

What if in certain life period attachment figure start to behave completely different from our internal working models and expectations? Bowlby (1988) claim that significant interactions with later attachment figures, like friends or romantic partners, can affect and change attachment. Researchers showed that unconfirmed expectations regarding self and others, through longer period, led to changes in quality of attachment (McConnell & Moss, 2011). Those changes are rare because people usually choose the environments that match their beliefs about themselves and others (Collins & Read, 1994). But, when changes are happening they are usually indicated by strong positive or negative changes in person's life. Most common triggers of those changes are stressors that exceed persons mental capacity (Allen et al., 2004), loss of a family member, divorce, poverty, hospitalization, abuse (McConnell & Moss, 2011). Except this, positive changes like long-term relationship satisfaction, greater emotional openness and less negative life events can change insecure attachment style to secure (Egeland & Farber, 1984; Vondra, Dowdell Hommerding, & Shaw, 1999).

Most research shows that secure attachment is the most stable attachment pattern (Crowell, Treboux, & Waters, 2002; Fraley et al., 2000; Kamenov, Jelić, Tadinac, Hromatko, & Pantić, 2006; Kamenov & Jelić, 2005).

Activation of attachment system

Mikulincer and Shaver (2007) think that any event that a person experiences as a threat is the event that activates attachment system. Besides actual events, that can also be thoughts, images, fantasies or dreams as internal sources of system activation (Greenberg, Solomon, & Pyszczynski, 1997; Mikulincer, Florian, & Hirschberger, 2003). These thoughts don't need to be conscious, system can be activated by minimal stimuli as it is the word "death" presented subliminally (Mikulincer, Birnbaum, Woddis, & Nachmias, 2000). In that state person is motivated especially to search for attachment figure or their internal representation in order to protect self from threat. Mikulincer, Gillath and Shaver (2002) in a series of laboratory experiments showed that mental representation of attachment figure activates automatically in human mind when, is even unconsciously exposed to endangering stimulus. This mental "invocation" of attachment figure has the purpose of calming and the protection of our mental structures (Mikulincer, Shaver, & Solomon, 2015). Need for real or symbolic availability of attachment figure lasts until a sense of security and protection is established. When this goal is achieved, the attachment system is deactivated and the person can return to other activities (Mikulincer & Shaver, 2007). This is happening with securely attached people, but within insecurely attached people, the attachment figure is often associated with thoughts about separation, hurt feelings, rejection and loss (Mikulincer & Shaver, 2007). Those frustrating and painful experiences with attachment figures made a strong connection between attachment activation and worries about separation and rejection. It is reason that causes these worries to occur every time the desire for proximity is active (Mikulincer & Shaver, 2007). Therefore, according to Mikulincer and Shaver (2007), the anxious person uses hyperactivational strategies, which include over-energized and energetic attempts to reach the proximity, support and love of the attachment figure. Avoiding people use strategies to deactivate their reactions and avoid confrontation with feelings of separation and rejection.

There are a few studies available that is concerned with experimental activation of attachment system and studying our behaviour patterns in this state (Kidd, Hamer, & Steptoe, 2011; Carpenter & Kirkpatrick, 1996). None of these studies deals with our notion of attachment before and after a stressful situation.

It is less known what our attachment looks like at the moment when the attachment system is activated. Considering that in situations when we are stressed, our own assessment of response in intimate relations can be different from the reactions in stressful situations. The problem of the study can be seen through this question: Does our assessment of response in close relations correspond to our actual reaction in a stressful situation, when the attachment system is active, and whether there are differences among attachment styles on this issue?

According to the attachment theory and extensive research work, attachment patterns should not be changed if the stressful situation is not directly

related to us, if it isn't too strong and long-lasting (Allen et al., 2004; Ammaniti et al., 2000; Bowlby, 1982; Consedine & Magai, 2006; Fraley, 2002; Fraley & Shaver, 2000; Waters et al., 2000; Zimmermann & Becker-Stoll, 2002). This suggests that a little stress caused by experimental manipulation should not significantly affect the distribution of attachment patterns, if the participants know well themselves and their reactions in such situations.

In order to investigate this issue, we designed an experimental procedure in which participants entered the stressful situation. The stressful situation was used to activate the attachment system, so the stability of the patterns can be measured immediately before and after the attachment system activation. For this purpose, we selected Relationship Questionnaire (Bartholomew & Horowitz, 1991) and Modified and Revised Experiences in Close Relationships Scale (SM-ECR-R, Hanak & Dimitrijevic, 2013). Both instruments are based in two-dimensional and four-categorical model of adult attachment (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994). They describe a secure and three insecure attachment styles on the two orthogonal attachment dimensions: avoidance and anxiety. Avoidance is equivalent to a negative model of others, while anxiety is equivalent to a negative model of self (Hanak & Dimitrijevic, 2013). Scientific research indicates the relationship between the dimensions of the SM-ECR-R questionnaire and the model of self and others obtained through the RQ questionnaire (Brennan, Clark, & Shaver, 1998; Griffin & Bartholomew, 1994; Rotaru & Rusu, 2013; Sibley, Fischer, & Liu, 2005; Tsagarakis, Kafetsios, & Stalikas, 2007; Wilkinson, 2011).

Methodology

Our goal is to better understand the dynamics and stability of attachment styles when the attachment system is active. This can practically serve for easier interpretation and better understanding the results of existing and new studies. The main hypothesis we set up was that there is an agreement between the distributions of attachment patterns obtained before and after a stressful situation for girls in student's age.

Sample

The subjects were students of the University of Banja Luka and the University for Business, Engineering and Management (PIM). The entry criterion that the participants had to fulfil was that they were over 18 years of age and that they had not previously listened to subjects in developmental psychology, which included attachment issues. A total of 100 students participated, whose attachment structure can be seen in Table 1. The average age of the sample is 20.98 years ($SD = 2.81$).

Table 1 *Structure of the sample according to attachment*

Attachment style	Frequency
Secure attachment	60
Fearful attachment	15
Preoccupied attachment	10
Dismissing attachment	15
Total	100

Procedure

At the beginning of the experiment, participants after the instruction filled out a questionnaire that determined their attachment before entering the stressful situation. Then, they read the story that brought them into a stressful situation. After that, they responded to the question about the experience of the story. Finally, they filled out a questionnaire that determined their attachment after a stressful situation. The experiment was performed in groups of 10 subjects, in order to maintain a sense of privacy and an intimate atmosphere.

Instruments and stimulus

To register forms of attachment at the very beginning of the research, the **Relationship Questionnaire** was used, for a simpler and faster assessment. The RQ questionnaire is one of the questioners created within the tradition of Kim Bartholomew (Bartholomew & Horowitz, 1991) and is directed to the assessment of the close relationships. The questionnaire consists of four descriptions, one for each of the four theoretically described forms of attachment according to the classification of Kim Bartholomew (Stefanović Stanojević, 2011). Participants choose which of these four descriptions best describes them. In addition, each description respondents rank on a scale of 1 (strongly disagree) to 7 (strongly agree). Data processing produces numerical scores for the internal working model of self and others. A form of attachment is obtained by combining these models. This instrument provides two types of data: numerical - the dimension of anxiety about loss of closeness (model of self) and the avoidance dimension (model of others) and categorical - patterns obtained by the estimates of the description. The test-retest reliability of the instrument in an eight-month interval suggests that the coincidence of two classifications is almost 70% (Scharfe & Bartholomew, 1994).

The experimental story is used as a stimulus that activates the attachment system. It was written specifically for research purposes. It contains motifs that all attachment patterns are generally experienced as stressful - illness and death. The final version of the story was based on the results of a pilot study (see Appendix). After reading the story participants answered the question of how stressful they were on the Likert scale of 1 (not stressful) to 7 (extremely stressful). This question was used as an indication of whether the stimulus affected the participants as it was expected.

SM-ECR-R is a revised version of the Experiences in Close Relationships Questionnaire, which served as a measure of attachment after the system activation. The items of the ECR questionnaire (Brennan et al., 1998) were obtained through factor analysis of adults' partner attachment measures that are based on self-report. The questionnaire was subsequently revised, so that in addition to partner attachment, it also measures attachment for any important person (Fraley et al., 2000). The questionnaire consists of 36 items. There are two subscales avoidance and anxiety. Each subscale has 18 items. The participants evaluate their agreement or disagreement on the seven-point Likert scale. The final score on this test is obtained by the cluster analysis or classical separation patterns. The classic separation process implies that the total score on the dimensions of avoidance and anxiety is divided by the number of items. This mean value on two dimensions is used to classify the participants. Fraley, Waller and Brennan (2000) advocated the theoretical arithmetic mean as a key point in relation to which we interpret a high and low score, which is the value of 4 for the 7-point scale. When this value is set as a boundary, the subjects can be assigned to one of 4 patterns (both values below 4 – secure; both above the 4 – fearful; anxiety through 4, avoiding under 4 - preoccupied and anxiety below 4, while avoiding over 4 – dismissing). Because of the different opinions about cluster extraction, which have been sparked by other researchers, and the methods they propose (Fraley et al., 2000), we compare the results when both types of modalities determination are used. In this research was used Serbian adaptation of the instrument, which showed good metric characteristics. The reliability expressed by the Cronbach's alpha coefficient for the subscale avoidance is .89, while for the subscale anxiety is .90 (Hanak and Dimitrijevic, 2013). The reliability of the SM-ECR-R questionnaire in this study for the subscale avoidance is $\alpha = .86$, and for the subscale anxiety $\alpha = .89$.

Results

Kolmogorov-Smirnov test shows that the data on the anxiety scale $D(100) = 0.07$, $p = .20$ and the avoidance scale $D(100) = 0.08$, $p = .17$, on SM-ECR-R questionnaire is normally distributed. The dimensions of anxiety and avoidance show a low and positive correlation ($r = .23$, $p = .019$).

After entering a stressful situation, the cluster analysis has isolated four attachment patterns. K-means algorithm was applied. The analysis of variance indicates that there are statistically significant differences between the clusters in the Avoidance ($F = 66.86$, $p = .000$) and Anxiety ($F = 57.87$, $p = .000$). Dimension values according to the final cluster centers can be found in Table 2.

Table 2 Value of dimensions according to the final centers of the cluster

	Cluster			
	1	2	3	4
Avoidance	1.59403	-.25639	-.98285	.32990
Anxiety	.56632	1.12645	-.87500	-.41186

In this way, after a stressful situation was separated 27 secure, 14 fearful, 26 preoccupied and 33 dismissing participants, which is quite unusual distribution, rarely found in research. The following distribution was obtained with the classical pattern separation: 70 secure, 15 dismissing, 12 preoccupied and 3 fearful participants. This distribution is more in line with theoretical expectations and more similar to distributions shown by other studies on domestic population (Dimitrijević, Hanak, & Milojević, 2011; Stefanović Stanojević, 2011)

Agreement of distributions before and after stressful situation

Table 3 shows the attachment before the stressful situation obtained from the RQ questionnaire and after the stressful situation obtained by the SM-ECR-R questionnaire, separated by the cluster analysis method.

Table 3 *Distribution of attachment styles before and after a stressful situation (cluster analysis method)*

		SM-ECR-R				Total
		Secure	Fearful	Preoccupied	Dismissing	
RQ	Secure	22	2	12	24	60
	Fearful	0	7	6	2	15
	Preoccupied	2	0	7	1	10
	Dismissing	3	5	1	6	15
	Total	27	14	26	33	100

The Kappa coefficient of agreement shows fair agreement between the patterns obtained before and after entering the stressful situation, by the cluster analysis method, $\kappa = .218$, (95% *CI*, .100 to .336), $p = .000$. Of the 60 secure participants, only 22 of them remained secure, which indicates that almost two thirds of the participants went into one of the insecure patterns. However, changes also occurred with insecure subjects, although they mostly remain inside one of the insecure attachment patterns, only five insecure participants after a stressful situation shows secure attachment.

Table 4 shows the attachment patterns before the stressful situation, obtained from the RQ questionnaire, and after the stressful situation obtained from the SM-ECR-R questionnaire, separated by the method of classical separation.

Table 4 *Distribution of attachment patterns before and after a stressful situation (classical data separation)*

		SM-ECR-R				Total
		Secure	Fearful	Preoccupied	Dismissing	
RQ	Secure	53	0	3	4	60
	Fearful	4	2	4	5	15
	Preoccupied	5	0	5	0	10
	Dismissing	8	1	0	6	15
	Total	70	3	12	15	100

In this case the kappa coefficient shows some more agreement, which is almost located at the border of fair and moderate agreement, $\kappa = .372$ (95% CI, .229 to .515) $p = .000$. The largest number of secure participants remains secure after the stressful situation (53 of 60). Insecure participants, mostly remain in the domain of insecure attachment, while 17 of them turn to secure attachment, which is the reason for a greater degree of agreement between attachment before stressful situation and attachment after the stressful situation obtained by classical separation method.

To further investigate the nature of the stability and dynamics of attachment in a stressful situation, we calculated the Pearson correlation coefficients between the dimensions of the SM-ECR-R questionnaire, the internal work models, and the items on RQ questionnaire. As expected, avoidance measured by the SM-ECR-R questionnaire shows a positive correlation with the RQ questionnaire item that describe dismissing style, and a negative relationship with the RQ questionnaire item describing the preoccupied pattern (Table 5). Anxiety from the SM-ECR-R questionnaire has a positive correlation with the RQ questionnaire item that describes the preoccupied pattern, but does not show an association with the RQ questionnaire item that describes the dismissing style. Both dimensions have a negative correlation with the RQ questionnaire item that describes a secure attachment, and positive correlates with an item that describes a fearful attachment (Table 5).

Table 5 Correlations between sub-scales on SM-ECR-R and RQ questionnaires

Sub-scales	1	2	3	4	5	6	7	8
1. Anxiety SM-ECR-R	-							
2. Avoidance SM-ECR-R	.233*	-						
3. Secure RQ	-.369**	-.370**	-					
4. Fearful RQ	.474**	.511**	-.510**	-				
5. Preoccupied RQ	.456**	-.202*	-.273**	.205*	-			
6. Dismissing RQ	.068	.342**	-.262**	.218*	.007	-		
7. RQ Model of self	-.543**	-.132	.640**	-.663**	-.651**	.279**	-	
8. RQ Model of others	-.215*	-.631**	.655**	-.684**	.210*	-.682**	.160	-

* $p < .05$, ** $p < .01$

The internal model of self has a negative medium-high correlation with the anxiety dimension. This means that people who had higher scores on the model of self before entering a stressful situation, after entering a stressful situation showed a lower score on anxiety dimension. The internal working model of others has a high and negative correlation with the avoidance dimension. This also shows that participants with higher scores on the model of others, after entering the stressful situation, showed lower scores on the avoidance dimension and vice versa. This is in essence the structure that many studies confirm and which supports the fact that these two instruments really measure the same domain of attachment.

Agreement between the distributions from SM-ECR-R questionnaire obtained by different methods of extraction

Table 6 shows the agreement of the attachment patterns obtained by the cluster analysis method and the method of classical pattern separation from the SM-ECR-R questionnaire.

Table 6 Agreement of the attachment patterns obtained by different extraction methods from the SM-ECR-R

		Classical patterns separation				Total
		Secure	Fearful	Preoccupied	Dismissing	
Cluster analysis	Secure	27	0	0	0	27
	Fearful	1	3	0	10	14
	Preoccupied	14	0	12	0	26
	Dismissing	28	0	0	5	33
Total		70	3	12	15	100

Agreement between attachment distributions from the SM-ECR-R questionnaire, obtained by cluster analysis and classical pattern separation is fair, $\kappa = .270$, (95% CI, .158 to .382), $p = .000$. The main difference between these two methods is noted in the number of secure participants. Cluster analysis method large number of secure attached subjects classified in some insecure patterns, while many dismissing participants classified as fearful, thus obtaining theoretical and empirical unexpected distribution, which is less in line with the distribution of attachment patterns obtained before the stressful situation.

Experience of the experimental story

The participants experienced experimental story quite stressful $M = 5.51$ ($SD = 1.45$) and 78% of the participants evaluated story stressful in the range of slightly more stressful to extremely stressful (Table 7). One sample t-test found that the average experience of stress ($M = 5.51$, $SD = 1.45$) was higher and statistically significantly different from a fairly low stressful, 95% CI (4.22 to 4.80), $t(99) = 31.19$, $p = .000$.

Table 7 Experience of the experimental story

Experience of the story	Frequency	Percentage
Extremely stressful	29	29.0
Quite stressful	33	33.0
Slightly more stressful	16	16.0
Medium stressful	8	8.0
A bit stressful	10	10.0
Pretty little stressful	4	4.0
Total	100	100

Independent samples t-test were compared the experiences of stress in experimental story of participants with secure attachment ($N=60$) and participants with insecure attachment ($N=40$). There was no significant difference in scores for secure ($M=5.58$, $SD=1.38$) and insecure participants ($M=5.40$, $SD=1.55$), $t(98)=0.62$, $p=.54$. The magnitude of the differences in the means (mean difference = .18, 95% CI: - 0.40 to 0.77) was very small (eta squared = 0.004). Thereafter, the ANOVA were compared to the average stress in the experiences of experimental story for all four attachment styles, obtained through RQ questionnaires before the stressful situation. Among them, a statistically significant difference was found: $F(3, 96)=3.76$, $p=.013$, the mean values of experience of experimental story by attachment styles can be found in Table 8.

Table 8 *Experience of experimental story according to attachment patterns*

Attachment styles	<i>N</i>	<i>M</i>	<i>SD</i>
Secure	60	5.58	1.38
Fearful	15	5.93	1.22
Preoccupied	10	6.00	1.25
Dismissing	15	4.47	1.64
Total	100	5.51	1.45

The actual difference in mean scores between the groups was medium. The effect size, calculated using eta squared, was .11. Post-hoc comparisons using the Tukey HSD test indicated that the mean score of the secure group ($M=5.58$, $SD=1.38$), the mean score of the preoccupied group ($M=6.00$, $SD=1.25$) and the mean score of the fearful group ($M=5.93$, $SD=1.22$) was significantly different from the dismissing group ($M=4.47$, $SD=1.64$). A group of secure, preoccupied and fearful participants of the respondents did not differ significantly in terms of the experimental story experience. This results shows that the secure, preoccupied and fearful subjects, experienced story more stressful than dismissing ones.

Discussion

The aim of this experiment was to investigate whether the estimation of the reaction in close relations corresponds to the actual reaction in a stressful situation, when the attachment system is active. To investigate this, we created an experiment in which participants were introduced into a stressful situation by reading the story. Before and after entering the stressful situation, an attachment was measured using the RQ and SM-ECR-R questionnaires.

In accordance with the general hypothesis, the agreement between patterns (measured before and after the stressful situation) does exist, but the low level of agreement is surprising. This data tells us that a lot of subjects after entering the stressful situation showed a different pattern of attachment. More agreement with patterns before the stressful situation was shown by patterns that after the

stressful situation have been obtained by classical pattern separation. It turned out that this distribution is more in line with theoretical expectations and more similar to the distributions shown by other studies on domestic population (Dimitrijević et al., 2011; Stefanović Stanojević, 2011). It shows a greater stability of a secure pattern, which is also in line with the findings of previous studies (Crowell et al., 2002; Fraley et al., 2000; Kamenov et al., 2006; Kamenov & Jelić, 2005). These results make the method of classical pattern separation a better choice in data processing. The method of cluster analysis proved to be impractical because of the artificially raised number of insecure subjects and an unusual distribution which does not agree with the theoretical and empirical expectations. Regardless of the method used for attachment pattern extraction, matching the initial patterns is quite low. Such low stability of attachment patterns can be partially attributed to different questionnaires which measured attachment. It is natural to expect that the various instruments make a little difference in the measurement of the observed phenomenon, but given the number of studies that indicate their theoretical and empirical connection (Brennan, Clark, & Shaver, 1998; Griffin & Bartholomew, 1994; Rotaru & Rusu, 2013; Sibley, Fischer, & Liu, 2005; Tsagarakis, Kafetsios, & Stalikas, 2007; Wilkinson, 2011) in this case they were hardly able to be the reason for low levels of agreement between the distributions. In situations where we are not stressed, our estimation of our own reaction in close relations may be different from the reaction in stressful situations or when activating the attachment system, and this could be reflected in various attachment patterns that we received before and after entering a stressful situation. In addition, it is possible that a person, under the influence of stressful circumstances, short time works in another form of attachment, and then relatively quickly returns to the dominant one, as it is discussed in the prototype model. According to Fraley and associates (Fraley, Vicary, Brumbaugh, & Roisman, 2011) if a person during experimental manipulation experiences the changes in attachment, the prototype model predicts that these changes will be temporary and that the individual will return to the level of security that is in accordance with his or her latent prototype, or the dominant pattern of attachment. This implies that we will not always be in our dominant attachment style, but we will be able to return it easily and quickly.

This is supported by the obtained connection between dimensions of the SM-ECR-R questionnaire and internal working models and items of RQ questionnaire, which mostly reaches the middle to high correlation, and indicates a quite good relation between the attachment obtained before and after the stressful situation. According to the correlation coefficients, the stability of attachment is not so low, as we could conclude from the coefficient of agreement. Such results show that phenomena such as attachment are better viewed through a dimensional approach, since the categorical approach fails to capture individual differences within a particular attachment pattern and assumes that they are mutually exclusive. This is supported by the findings of taxometric analysis, which show that individual attachment differences of adults are continuously

distributed (Fraley, Hudson, Heffernan, & Segal, 2015; Fraley & Shaver, 2000; Roisman et al., 2005). Cohen (1983) held that if the difference in the attachment styles are continuous and researchers classified people into categories, potentially important information about the way in which people differ from each other will be lost, which is likely to happen in the case when we tried to check the matching of attachment distributions based on a categorical approach.

Additional analysis has shown that, unlike the pilot study, there is a significant difference between patterns when it comes to experience of the experimental story. Dismissing participants story experience was less stressful than other attachment styles. This can be explained by using a strategy of distancing from a stressful situation and affectively colored themes. Such reactions according to Mikulincer and Shaver (2007) belong to the deactivation strategy, which are very characteristic for dismissing individuals. In pilot testing, there was no difference probably because of the small number of participants.

Conclusion

The stability of attachment patterns is low when we compare the pattern distribution before and after a stressful situation. The comparison of the basic dimensions of attachment gives us a different picture, which speaks in favour of greater attachment stability. On this segment researchers should certainly pay attention, given that more and more, results of other research support the dimensional approach to the study of attachment. Special attention requires a method of pattern extraction from the SM-ECR-R questionnaire. It has been shown that the classical pattern separation is more effective than the cluster analysis method, which can give a rather problematic appearance of the distribution and alter the true picture of the attachment in the sample. In the next researches, it would be convenient to include in the assessment the degree of reflexivity and introspection of the respondents, in order to have more information about the reasons for these variations in the quality of attachment. It is also recommended to include other populations in the sample, not only considering different genders but also different ages.

References

- Allen, J. P., McElhaney, K. B., Kuperminc, G. P., & Jodl, K. M. (2004). Stability and Change in Attachment Security across Adolescence. *Child Development, 75*(6), 1792–1805.
- , M., Van Ijzendoorn, M. H., Speranza, A. M., & Tambelli, R. (2000). Internal working models of attachment during late childhood and early adolescence: an exploration of stability and change. *Attachment & Human Development, 2*(3), 328–346.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment Styles Among Young Adults: A Test of a Four-Category Model. *Journal of Personality and Social Psychology, 61*(2), 226–244.

- Bowlby, J. (1973). *Attachment and Loss: Volume 2. Separation, Anxiety and Anger*. New York: Basic Books.
- Bowlby, J. (1982). *Attachment and loss* (2nd ed., Vol. 1). New York: Basic Books.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. *Attachment Theory and Close Relationships*, (April), 46–76.
- Carpenter, E. M., & Kirkpatrick, L. A. (1996). Attachment style and presence of a romantic partner as moderators of psychophysiological responses to a stressful laboratory situation. *Personal Relationships*, 3(4), 351–367.
- Cohen, J. (1983). The Cost of Dichotomization. *Applied Psychological Measurement*, 07(38), 249–253.
- Collins, N. L., Guichard, A. C., Ford, M. B., & Feeney, B. C. (2004). Working Models of Attachment: New Developments and Emerging Themes. In W. S. Rholes & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications* (pp. 196–239). New York: NY, US: Guilford Publications.
- Collins, N. L., & Read, S. (1994). Cognitive Representations of Attachment: The Content and Function of Working Models. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships* (pp. 53–90). London: Jessica Kingsley.
- Consedine, N. S., & Magai, C. (2006). Emotional development in adulthood: A developmental functionalist review and critique. In C. Hoare (Ed.), *Handbook of adult development and aging* (pp. 209 – 244). New York: Oxford University Press.
- Crowell, J. A., Treboux, D., & Waters, E. (2002). Stability of attachment representations: The transition to marriage. *Developmental Psychology*, 38(4), 467–479.
- Dimitrijević, A., Hanak, N., & Milojević, S. (2011). Psihološke karakteristike bucućih pomagača -empatičnost i vezanost studenata psihologije. *Psihologija*, 44(2), 97–115.
- Egeland, B., & Farber, E. A. (1984). Infant-mother attachment: factors related to its development and changes over time. *Child Development*, 55(3), 753–771.
- Fraley, R. C. (2002). Attachment Stability From Infancy to Adulthood: Meta-Analysis and Dynamic Modeling of Developmental Mechanisms. *Personality and Social Psychology Review*, 6(2), 123–151.
- Fraley, R. C., Hudson, N. W., Heffernan, M. E., & Segal, N. (2015). Are adult attachment styles categorical or dimensional? A taxometric analysis of general and relationship-specific attachment orientations. *Journal of Personality and Social Psychology*, 109(2), 354–368.
- Fraley, R. C., & Shaver, P. R. (2000). Adult Romantic Attachment: Theoretical Developments, Emerging Controversies, and Unanswered Questions. *Review of General Psychology*, 4(2), 132–154.
- Fraley, R. C., Vicary, A. M., Brumbaugh, C. C., & Roisman, G. I. (2011). Patterns of stability in adult attachment: An empirical test of two models of continuity and change. *Journal of Personality and Social Psychology*, 101(5), 974–992.
- Fraley, R. C., & Waller, N. G. (1998). Adult attachment patterns: A test of the typological model. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment Theory and Close Relationships* (pp. 77–114). New York: NY: Guilford Press.

- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An Item Response Theory Analysis of Self-Report Measures of Adult Attachment. *Journal of Personality and Social Psychology, 78*(2), 350–365.
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror Management Theory of Self-Esteem and Cultural Worldviews: Empirical Assessments and Conceptual Refinements. *Advances in Experimental Social Psychology, 29*(C), 61–139.
- Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology, 67*(3), 430–445.
- Hanak, N., & Dimitrijevic, A. (2013). A Serbian Version of Modified and Revised Experiences in Close Relationships Scale (SM – ECR – R). *Journal of Personality Assessment, 95*(5), 530–538.
- Kamenov, Ž., & Jelić, M. (2005). Stability of attachment styles across students romantic relationships, friendships and family relations. *Review of Psychology, 12*(2), 115–123.
- Kamenov, Ž., Jelić, M., Tadinac, M., Hromatko, I., & Pantić, P. (2006). *Relationship quality and satisfaction in relation to compatibility of romantic partners' attachment styles. 2006 International Association for Relationship Research Conference*. Rethymno, Crete.
- Kidd, T., Hamer, M., & Steptoe, A. (2011). Examining the association between adult attachment style and cortisol responses to acute stress. *Psychoneuroendocrinology, 36*(6), 771–779.
- McConnell, M., & Moss, E. (2011). Attachment across the life span: Factors that contribute to stability and change. *Australian Journal of Educational and Developmental Psychology, 11*, 60–77.
- Mikulincer, M., Birnbaum, G., Woddis, D., & Nachmias, O. (2000). Stress and Accessibility of Proximity-Related Thoughts: Exploring the Normative and Intraindividual Components of Attachment Theory. *Journal of Personality and Social Psychology, 78*(3), 509–523.
- Mikulincer, M., Florian, V., & Hirschberger, G. (2003). The existential function of close relationships: Introducing death into the science of love. *Personality and Social Psychology Review, 7*(1), 20–40.
- Mikulincer, M., Gillath, O., & Shaver, P. R. (2002). Activation of the Attachment System in Adulthood: Threat-Related Primes Increase the Accessibility of Mental Representations of Attachment Figures. *Journal of Personality and Social Psychology, 83*(4), 881–895.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in Adulthood: Structure, Dynamics, and Change*. New York: The Guilford Press.
- Mikulincer, M., Shaver, P. R., & Solomon, Z. (2015). An Attachment Perspective on Traumatic and Post-Traumatic Reactions. In M. P. Safir, H. S. Wallach, & A. "S. . Rizzo (Eds.), *Future directions in post-traumatic stress disorder: Prevention, diagnosis, and treatment* (pp. 79–96). New York: NY, US: Springer Science + Business Media.
- Rotaru, T.-Ș., & Rusu, A. (2013). Psychometric Properties of the Romanian Version of Experiences in Close Relationships-revised Questionnaire (ECR-R). *Procedia - Social and Behavioral Sciences, 78*(1990), 51–55.

- Scharfe, E., & Bartholomew, K. (1994). Reliability and stability of adult attachment patterns. *Personal Relationships*, 1(1), 23–43.
- Sibley, C. G., Fischer, R., & Liu, J. H. (2005). Reliability and Validity of the Revised Experiences in Close Relationships (ECR-R) Self-Report Measure of Adult Romantic Attachment. *Personality and Social Psychology Bulletin*, 36, 969–975.
- Stefanović Stanojević, T. (2011). *Afektivna vezanost: razvoj, modaliteti i procena*. (B. Dimitrijević, Ed.) (2nd ed.). Niš: Filozofski fakultet u Nišu.
- Tsagarakis, M., Kafetsios, K., & Stalikas, A. (2007). Reliability and Validity of the Greek Version of the Revised Experiences in Close Relationships Measure of Adult Attachment. *European Journal of Psychological Assessment*, 23(1), 47–55.
- Vondra, J. I., Dowdell Hommerding, K., & Shaw, D. S. (1999). Stability and Change in Infant Attachment in a Low-Income Sample. *Child Development*, 64(3), 119–144.
- Zimmermann, P., & Becker-Stoll, F. (2002). Stability of attachment representations during adolescence: the influence of ego-identity status. *Journal of Adolescence*, 25(1), 107–124.
- Waters, E., Merrick, S., Treboux, D., Crowell, J., & Albersheim, L. (2000). Attachment security in infancy and early adulthood: A twenty-year longitudinal study. *Child Development*, 71(3), 684–689.
- Wilkinson, R. B. (2011). Measuring Attachment Dimensions in Adolescents: Development and Validation of the Experiences in Close Relationships — Revised — General Short Form. *Journal of Relationships Research*, 2, 53–62.

Anja Eraković

Aleksandra Hadžić

University of Banja Luka, Faculty of Philosophy

AKTIVACIJA SISTEMA AFEKTIVNE VAZANOSTI I STABILNOST OBRAZACA U STRESNOJ SITUACIJI

Sažetak

Cilj ovog rada je ispitati stabilnost obrazaca afektivne vezanosti u situaciji koja aktivira sistem afektivne vezanosti. U tu svrhu korištena je eksperimentalna priča koja je uvela ispitanice u stresnu situaciju i aktivirala sistem afektivne vezanosti. Stabilnost obrazaca afektivne vezanosti mjerena je RQ upitnikom, prije i SM-ECR-R upitnikom poslije stresne situacije. Uzorak je činilo 100 ispitanica, ženskog pola, prosječne starosti 20.98 godina ($SD = 2.81$). Rezultati pokazuju slabo slaganje između obrazaca afektivne vezanosti prije i nakon ulaska u stresnu situaciju, kada se radi o obrascima koji su nakon stresne situacije sa SM-ECR-R upitnika izdvojeni klaster analizom ($\kappa = .218, p = .000$). Obrasci koji su sa SM-ECR-R upitnika izdvojeni na klasičan način pokazuju nešto više slaganje sa početnim obrascima ($\kappa = .372, p = .000$). Slaganje ove dvije metode izdvajanja obrazaca dobijenih SM-ECR-R upitnikom je takođe nisko, ($\kappa = .270, p = .000$). Korelacije između dimenzije anksioznosti i modela

sebe ($r = -.543, p = .000$) i dimenzije izbjegavanja i modela drugih ($r = -.631, p = .000$) ukazuju da postoji srednje visoka i visoka povezanost između dimenzija afektivne vezanosti prije i nakon ulaska u stresnu situaciju. Ovakvi rezultati pokazuju da stresna situacija na mikro nivou nije toliko uticala na promjenu afektivne vezanosti, te da su ovi rezultati prilikom poređenja stabilnosti obrazaca ostali maskirani pripadnošću grupi, koja ne uspijeva da obuhvati individualne razlike unutar grupe. Rezultati, takođe, ukazuju na veću teorijsku i empirijsku opravdanosti korištenja klasičnog izdvajanja obrazaca prilikom obrade podataka dobijenih sa SM-ECR-R upitnika.

Ključne riječi: aktivacija sistema afektivne vezanosti, stabilnost stilova vezanosti, stresna situacija, eksperimentalna studija

RELATIONS BETWEEN ATTACHMENT STYLES, LIFE POSITIONS AND DRIVERS

Abstract

The attachment theory and the transactional analysis represent two psychological approaches to the study of the emotional development of an individual, as well as the interaction of an individual with the people from his/her environment and the quality of these relationships. Although they have different terminology and methodology, they have a certain aspects of theoretical overlap. The purpose of this paper is to determine the relations of some constructs of these two approaches – dimensions and attachment styles, drivers and life positions. The sample consisted of 324 participants (50.6% female). The following instruments were used: for the assessment of the attachment dimensions - SM-ECR-R, for the assessment of drivers - Working Style Questionnaire and for the operationalization of life positions - Scale of Life Positions. The results of multivariate analysis of variance show that there are statistically significant differences between attachment styles and drivers ($F(10, 628)=2.51, p<.01, Wilk's \lambda=.92, \eta^2=.04$), as well as between attachment styles and life positions ($F(8, 630)=17.82, p<.001, Wilk's \lambda=.67, \eta^2=.19$). The conclusion of this paper is that the attachment styles achieve a partially presumed relationship with the constructs of transactional analysis, but there are certain inconsistencies which are not in accordance with theoretical expectations.

Key words: attachment theory, transactional analysis, attachment styles, drivers, life positions

Introduction

Idea that socialization and relation between parents and child influence entire development in adulthood can be found in works of Sigmund Freud. This idea is present in the works of many theoreticians, especially in theoretical approaches which were created from the rebellion and criticism of classical psychoanalytic theory, first of all - the attachment theory (Bowlby, 1960) and the transactional analysis (Berne, 1973). Likewise, both theoretical approaches have similar interpretations of emotional development. Relationships with close people in early childhood are the basis for a later experience of self and others, socialization, and behavior in adulthood and the quality of interpersonal relationships (Bowlby, 1983; Stewart, 2012).

¹ corresponding author petarmrdja1995@gmail.com

Attachment is a relationship that is formed between child and mother in the earliest period of childhood, and the quality of this relationship reflects on many aspects of the functioning of people while growing up and in the adulthood (Stefanović-Stanojević, 2006). The concept of attachment is first empirically supported by the works of Mary Ainsworth, who identified the existence of three attachment styles - one secure and two insecure (anxious and avoidant) attachment styles, while the disorganized attachment style was first introduced and examined in the works of Mary Main (Stefanović-Stanojević, 2011). Development of internal working models (IWM) is described by many authors, and the very first author of attachment theory gave the basic ideas of etiology of this construct. According to Bowlby (Bowlby, 1983), in the first three years of life, the child is actively engaged in construction of internal working models about how a mother and other important person could behave, so that it could behave accordingly. The internal working model of self, child carries while growing up and it represents permanent part of person, which is carried throughout the life and influences the formation of all later relations. It represents child's internalized representations of self that are developed from experiences with primary attachment figures. Internal working models of self and others are shown to be relatively stable throughout the life. Results of these studies indicate that there is no significant change in organization of attachment styles in 70-80% of participants. Today, one of the most used scale for assessing attachment styles is ECR-R based on the theoretical work of Kim Bartolomew. The difference between the previous measurement approaches is the existence of two dimensions on the scale - the avoidance of closeness and anxiety about the loss of close relationships, the crossing of two gives the four attachment styles (Bartolomew & Horowitz, 1991). The dimensions of avoidance and anxiety correspond to the internal working model of themselves (anxiety about the loss of close relationships) and the internal working model of others (avoidance of closeness).

Transactional analysis (TA) is created in the 1950s by Erik Berne. Berne's original plan was to expand psychoanalysis, but he abandoned that idea and started focusing on social interactions as the basis for the analysis (Stewart, 2012). An important concept within the TA is a life script, i.e. the unconscious lifestyle that occurs in the earliest childhood and arises from stroking of script messages from parents (Berne, 1973), and the ultimate result is shown in a way of evaluating oneself and the world around you (Stewart & Joines 1987; Stewart, 2012). Stroking represents the physical touch of the guardian and every kind of recognition that one person sends to another. The concept of stroking can be linked to the human need for recognition and close emotional relationship, which is particularly emphasized by Bowlby (Bowlby, 1983). These methods of evaluation are reflected through four life positions - I'm OK - You're OK, I'm OK - You're Not OK, I'm Not OK - You're OK, I'm Not OK - You're Not OK (Pitman, 1982). One type of scripting messages are injunctions, and some authors state that there are 12 major injunctions that can be identified (Goulding & Goulding, 1976). In contrast

to injunctions, the Parent's environment can send counter injunctions and they represent orders what should or should not be done in order to be OK, and are often either irrelevant to the child or even strengthen the injunctions (Stewart & Joines 1987). These orders are called driver messages or simply - drivers (Kahler, 1975). Kahler identified five drivers, although other authors challenge this claim and suggest a larger or a smaller number of drivers (Gellert, 1985; Tudor, 2008). Consistent with drivers, there are also driver behaviors, that last very briefly and are part of wider spectrum of behaviors called mini-script (Kahler & Capers, 1974). In the Appendix 1, driver names, driver behaviors, consequences of drivers and driver behaviors in work organizations are presented. The driver behavior, presented like this, have a negative connotation, which was noted by some theorists who felt that drivers could have positive characteristics. The first such considerations were made by Klein (1987, 1992). Positive characteristics of driver behaviors were also analyzed in the context of the work organizations as shown in Appendix 1 (Hay, 1992, 1997), and they were operationalized through the Working Style Questionnaire (Hay, 1992). Hay's idea of drivers is based on Kahler's original work, so every driver measured in the Working Style Questionnaire should match the analog driver by Kahler.

On the subject of the relationship of attachment styles and drivers, during the period of writing this paper, only one study was found (Stefanović-Stanojević & Hadži-Pešić, 2009). The authors found the connection between the anxious-preoccupied attachment style on one side and the drivers Please Others and Hurry Up on the other. Also, a positive relation was found between the fearful-avoidant attachment style and Be Strong driver. These results should be taken with caution for several reasons, which are stated by the authors of the study: the sample included only female participants, and perhaps even bigger problem of the study is representation of attachment styles in a sample that does not correspond to the frequencies of attachment styles found in larger and more representative samples (van Ijzendoorn & Sagi, 1999; Stefanović-Stanojević, 2002; 2004). The room for this research can be found in the desire to overcome the limitations of the above study by collecting a larger sample with a balanced representation of both sex, and the aim of the study is to determine the relationships between these two psychological constructs. The secure attachment style, for instance, describes adult individuals who have a sense of lovability about themselves and who believe that others will be accepting and responsive. This essentially describes the first life position in the transactional analysis literature: "I'm OK, You're OK" (I+U+). Preoccupied attachment style describes individuals who view themselves negatively but other people positively. This is strikingly similar to the depressive's position or "I'm Not OK, You're OK" (I-U+). Adults with the dismissing style of attachment view themselves in a positive light and others with suspicion, just as in "I'm OK, You're Not OK" (I+U-). Lastly, individuals with the fearful attachment style view themselves and others negatively, as in "I'm Not OK, You're Not OK" (I-U-)(Boholst et al., 2005).

Driver messages in the counterscript carry a special implication about life positions, so parental message can be: "You're OK if... you are perfect, please other etc." So when someone is in script and listening to this parental message, position can be: "I'm OK as long as... I am perfect, please others etc.", thus drivers reflect position of conditional OKness (Stewart, 1987).

In the introduction, the theoretical relation between the drivers and the life positions was presented, because, as already mentioned, both concepts are in relation to the life script.

Method

The sample consists of 324 respondents (50.6% of women). The age of the subjects ranged from 18 to 35 years ($M = 22.72$, $SD = 3.36$). Respondents' data were collected via an online survey (Google Form) which was distributed on social networks.

Instruments

A questionnaire of demographic characteristics is used, such as gender, age and level of education.

The Serbian version of the modified and revised scale of close relationships (SM-ECR-R) - is a questionnaire for evaluating generally observed attachment styles in close relationships (Hanak & Dimitrijevic, 2013). This questionnaire is made up of 36 items to which the respondents rate their degree of consent on the seven point Likert scale (1 = "I do not agree"; 7 = "I completely agree"). The questionnaire is made of two subscales: subscale avoidance (18 items, an example of the item "I prefer not to show how I feel deep inside myself") that theoretically corresponds to the internal working model of others; and subscale anxiety (18 items, an example of the item "I'm afraid that close people will stop loving me") that theoretically corresponds to the internal working model of self. By crossing these two scales, four attachment styles are made. The Serbian version of ECR-R scale is proved to be valid and reliable ($\alpha = .89$ for subscale avoidance; $\alpha = .90$ for subscale anxiety) (Hanak & Dimitrijevic, 2013).

The Working Style Questionnaire - is a instrument for assessing drivers (working styles) in the context of the work (Hay, 1992; 1997), and the translation and modification of this scale into the Serbian language was carried out (Franceško, Kosanović & Kajon, 2005). This questionnaire is made up of 25 items, to which the respondents rate their degree of consent on a nine point scale (0 = "It does not apply to me at all"; 4 = "It refers to me in part"; 8 = "It applies to me completely"). The instrument consists of five subscales, each containing five items and theoretically corresponding to the drivers: Hurry Up (example of the item "I have the custom

to wait for the last moment and then start with the task”), Be Perfect (example of the item “I precisely organize and plan my tasks”), Please Others (example of the item “I enjoy encouraging people and helping them”), Work Hard (example of the item “I enjoy starting new tasks”) and Be Strong (example of the item “I exceeded the deadlines because I felt ashamed to ask for help even though I have too much work”). Score over the assumed theoretic mean indicates the dominance of a certain driver in respondent, with more than one drive being allowed to dominate in structure of behavior. The psychometric properties of this questionnaire have not been verified in previous research.

A Life Position Scale – consists of four subscales: I+, You+, I- and You- (Boholost et al., 2005). Translation into Serbian was done by Budiša (2009). The scale contains 20 items, with each subscale containing five items (an example of an item for I+ “I love myself”, an example of an item for You+ “Others are generally okay”, an example of an item for I- “I do not feel good in my skin”, an example items for You- “Others irritate me”), and respondents give their answers on a five point Likert scale. The reliability of the subscales ranges from $\alpha = .70$ to $\alpha = .84$ on samples whose data were collected by paper-pen technique (Budiša, 2009), while the lowest reliability of the subscales was obtained on the sample whose data were collected by an online survey - $\alpha = .66$ to $\alpha = .80$ (Tadić et al., 2015). Life positions are obtained by summing the subscales.

Results

Table 1 shows the results of descriptive statistics and internal consistency of subscales that were used.

Table 1. *Descriptive statistics and internal consistency data*

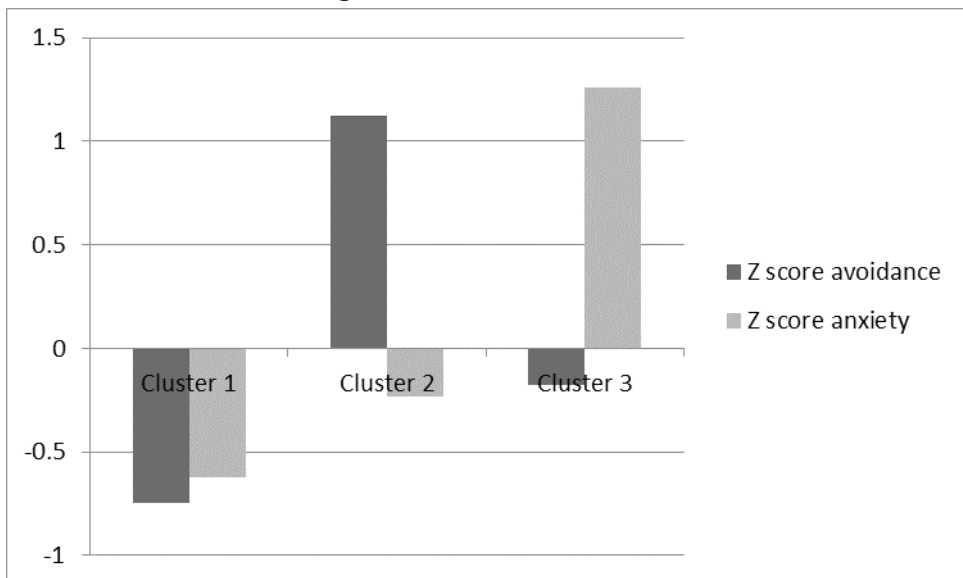
Subscales	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	<i>Sk</i>	<i>Ku</i>	α	ω
Avoidance	18	29.00	111.00	64.74	14.84	.29	-.10	.81	.82
Anxiety	18	18.00	117.00	53.08	19.52	.48	-.18	.90	.91
Hurry up	5	5.00	40.00	23.20	5.94	-.29	.09	.24	.32
Be prefect	5	0.00	27.00	22.96	7.18	-.58	.07	.62	.68
Please others	5	5.00	40.00	25.85	6.27	-.47	.45	.49	.57
Try hard	5	3.00	39.00	22.65	7.01	-.28	-.13	.64	.65
Be strong	5	2.00	40.00	23.62	6.06	.14	.68	.51	.60
I'm OK	5	9.00	25.00	19.96	3.47	-.67	.27	.77	.78
You're OK	5	8.00	25.00	17.37	3.02	-.28	.45	.58	.60
I'm not OK	5	5.00	25.00	9.96	3.76	1.3	1.8	.69	.70
You're not OK	5	5.00	25.00	11.78	3.34	.84	.98	.60	.61

Legend: *N*- number of items; *Min*- minimal score on the scale; *Max*- maximum score on the scale; *M*- arithmetic mean; *SD*- standard deviation; *Sk*- skewness; *Ku*- kurtosis; α - Cronbach's alpha internal consistency coefficient; ω - McDonald's Omega internal consistency coefficient.

Beside Alpha coefficient, Table 1 also shows McDonald's coefficient omega, because researches have showed less susceptibility to errors and relative insensitivity to number of items within subscales using this coefficient (Dunn, Baguley, & Brunsden, 2014). The internal consistency of subscale avoidance and subscale anxiety is satisfactory, while subscales related to drivers have lower reliability. All five subscales have Alpha and Omega coefficients under conventional limit of .7. The most problematic subscale is „Hurry up“, while subscales „Try hard“ and „Be perfect“ have tendency to have good reliability (McDonald, 1999 prema Dunn, Baguley, & Brunsden, 2014). From subscales that represent life positions, subscales I'm OK and I'm not OK have good reliability, while subscales you're OK and you're not OK do not have that good reliability. In order to gain life positions, individual subscales of the dimensions of life positions are summarized in four combinations that correspond to the theoretical concept of life positions as Boholst (Boholst et al., 2005) suggested. This summarized life positions was used in further analysis.

Attachment patterns are identified with cluster analysis (K-means). In first step are standardized scores on dimension avoidance and dimension anxiety, after that, within package NbClust (Charrad et al., 2014) of software R (Charrad et al., 2014) an adequate number of clusters have been identified. This package includes 30 indicators, and the decision about number of clusters is made on the rule of majority. Analysis indicates that there are three clusters (from 30 indicators, 10 of them indicate on three clusters), although it is theoretical assumption that affective attachment consists four attachment styles. Based on these data, there were separated three clusters, and final centers are shown on Figure 1.

Figure 1. *Final cluster centers*



Based on theoretical data about internal working models of self and others, chart 1 shows us that cluster 1 fits secure attachment style (low anxiety and low avoidance), cluster 2 fits avoidant style (low anxiety and high avoidance) and cluster 3 fits preoccupied attachment style (high anxiety and low avoidance). Table 2 shows percentage representation of attachment styles in total sample and in regard to gender.

Table 2. Percentage representation of attachment styles in total sample regarding to gender

	Sample	Male	Female
Secure attachment style	39.2 %	40.6 %	37.8 %
Avoidant attachment style	32.1 %	29.4 %	34.8 %
Preoccupied attachment style	28.7 %	30.0 %	27.4 %

Chi-Square Test shows that there are no statistically significant differences of attachment styles regarding gender ($\chi^2(2, N = 324) = 1.08, p = .58$).

Identified attachment styles (clusters) and gender were subjected to multivariate analysis of variance (MANOVA), where there are drivers (in first step) and life positions (in second step) defined as dependent variables. First was tested the interaction effect of independent variables on already mentioned set of dependent variables. In case of drivers as dependent variables, multivariate statistically significant relational effect was not found. ($F(10, 628) = .98, p = .45, \text{Wilk's } \lambda = .97$). There were found statistically significant differences between attachment styles concerning combination of dependent variables ($F(10, 628) = 2.51, p < .01, \text{Wilk's } \lambda = .92, \text{partial } \eta^2 = .04$) and statistically significant differences between gender concerning combination of dependent variables ($F(10, 628) = 2.51, p < .01, \text{Wilk's } \lambda = .92, \text{partial } \eta^2 = .04$). Further analysis showed statistically significant difference of small effect (Cohen, 1988) between attachment styles and driver Please others ($F(2, 318) = 4.44, p < .05, \text{partial } \eta^2 = .03$), while significant differences were not found in regard to other individual drivers. Results of post-hoc analysis (with Bonferroni correction) show that statistically significant difference ($p < .05$) exists between avoidant ($M = 24.48, SD = 6.92$) and preoccupied ($M = 26.93, SD = 5.88$) attachment style regarding to driver Please others, while between rest of the individual attachment styles were not found statistically significant differences regarding this driver. Results of univariate analysis show existence of statistically significant difference of low effect between men and women, with driver Try hard ($F(1, 318) = 5.46, p = .02, \text{partial } \eta^2 = .02$) at one side and driver Be strong at the other side ($F(1, 318) = 14.41, p < .001, \text{partial } \eta^2 = .04$). Men show a bit higher results in drive Try hard ($M = 23.58, SD = 6.13$) regarding to women ($M = 21.68, SD = 7.51$), as well as in driver Be strong (men- $M = 24.93, SD = 5.17$; women- $M = 22.41, SD = 6.48$).

In second step, independent variables were not changed, as dependent variables were taken dimensions of life positions. First was tested interactional effect of independent variables on already mentioned set of dependent variables.

Multivariate statistically significant interactional effect in case of life positions as dependent variables wasn't found ($F(6, 634)=.61, p=.72, \text{Wilk's } \lambda=.99$). There were found statistically significant differences between attachment styles regarding to combination of dependent variables ($F(6, 638)=22.90, p<.005, \text{Wilk's } \lambda=.68, \text{partial } \eta^2=.18$), while statistically significant differences between gender regarding to combination of dependent variables wasn't found ($F(3, 316)=2.06, p=.10, \text{Wilk's } \lambda=.98, \text{partial } \eta^2=.02$). Further procedure included univariate analysis, respectively identification of potential differences between attachment styles and gender regarding independent life positions. There were noticed statistically significant differences between attachment styles regarding to all life positions. Statistically significant difference of high effect was identified between attachment styles and dimensions I'm OK, You're OK ($F(2,321)=40.14, p<.001, \text{partial } \eta^2=.20$) and I'm not OK, You're not OK ($F(2,321)=41.76, p<.001, \text{partial } \eta^2=.21$), and statistically significant differences of medium intensity was found for I'm not OK, You're OK ($F(2,321)=14.77, p<.001, \text{partial } \eta^2=.09$) while for life position I'm OK, You're not OK ($F(2,321)=.79, p=.45, \text{partial } \eta^2=.01$) statistically significant difference wasn't found. Post-hoc analysis with Bonferroni correction within I'm OK, You're OK position, were found differences between secure attachment style and both insecure attachment styles ($p<.001$), while the differences between avoiding and preoccupied attachment styles were not identified ($p>.05$). Differences between attachment styles were not identified for I'm OK, You're not OK life position, while there were found statistically significant differences between secure attachment style and preoccupied attachment style regarding to I'm not OK, You're OK position ($p<.01$), and avoidant and preoccupied style ($p<.05$) for same position. Secure attachment style differs from both insecure attachment styles for I'm not OK, You're not OK life position ($p<.01$), and there were found statically significant difference between avoidant and preoccupied attachment style for this life position ($p<.05$) Results of descriptive statistics are presented in Table 3. Results of univariate analysis show that statistically significant difference does not exist between men and women regarding to lifestyle positions.

Table 3. *Descriptive statistics of post-hoc analysis (Mean and standard deviation of life positions regarding to attachment styles)*

	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
	Secure attachment style		Avoidant attachment style		Preoccupied attachment style	
I'm OK, You're OK	40.24	4.16	34.77	5.60	36.39	4.59
I'm OK, You're not OK	31.94	3.83	31.23	4.82	31.71	4.34
I'm not OK, You're OK	26.72	3.00	26.16	4.27	29.02	4.49
I'm not OK, You're not OK	18.41	3.75	22.61	5.49	24.34	5.83

Discussion

The aim of this research is to determine relations between attachment styles, drivers and life positions. MANOVA results show that there are statistically significant small differences in attachment styles in relation to driver behavior. MANOVA was used as a multivariate technique with the aim of reducing the Type II error, but the problem with this statistical technique is that it does not give an insight into the individual relations of an independent and dependent variable (Field, 2009). These results are accompanied by the results of a univariate analysis i.e. ANOVA to gain insight into the differences between attachment styles in relation to individual drivers and life positions. ANOVA results indicate that there are only significant minor differences between the attachment styles in relation to the driver Please Others, while in other cases these differences are not noticeable. The post-hoc test indicates that there are significant differences between the attachment styles in relation to this driver, where the anxious-preoccupied attachment style achieves the highest score. This result is in accordance with the theoretical postulates of this driver described in the introduction. What can be pointed out is that there are differences in the multivariate space between the attachment styles and driver behaviors, but that these differences are small (almost negligible size of the effect), and that no differences have been noticed with a more detailed analysis of these psychological constructs. These data are incompatible with previous researches in this region (Stefanović-Stanojević & Hadži-Pešić, 2009). The results indicate that there are statistically significant differences in the multivariate space between the attachment styles and the dimensions of the life positions. The results of univariate analysis of variance show that there are statistically significant differences between life positions regarding secure attachment style. The respondents that have been categorized in group of secure attachment style, have achieved the highest scores in I'm OK, You're OK life position and the lowest scores in I'm not OK, You're not OK life position. This result was expected and it is adequate, considering theoretical overlap of these two psychological constructs (Boholst et al., 2005). Statistically significant differences also have been identified in I'm not OK, You're not OK life position. The presented results are in relative accordance with theoretical framework. Namely, the respondents that have been categorized in group of secure attachment style reach the lowest scores in this life position, while there are no statistically significant differences between insecure attachment styles. The deficiency of this research is definitely the lack of disorganized attachment style, that is, cluster analysis did not found disorganized attachment style, and the respondents that would be classified in this attachment style should have the highest score in this life position. This is also a recommendation for the future researches. In the life position I'm not OK, You're OK, also have been identified statistically significant differences, but they have a bit lower size effect comparing to the two previous life positions. These results are also in relative accordance

with theoretical assumptions. Namely, the correspondents that are classified in anxious attachment style, that is, the correspondents who have negative IWM of self and positive IWM of others, achieve the highest scores in this life position. Statistically insignificant differences between secure and avoidant attachment style, have not been expected. The absence of statistically significant differences between attachment styles regarding the life position I'm OK, You're not OK, can be explained in a way that dimensions (subscales) that make this position have negative skewness, that is, the respondents on these subscales show the tendency to higher scores, and the position itself is created by summing up the results of two scales, that is, the tendency of respondents to gain higher scores in these dimensions could take us to these result that does not have discrimination regarding attachment styles. We consider that different way of identification of life positions (using the different technique of positions forming) could lead us to solving this problem. Generally observed, there exists some level of overlap between attachment styles and life positions. Certain inconsistencies in results can be attributed to using of cluster analysis, which has its own deficiencies, as technique for identifying attachment styles, as well as the way of forming the life positions. (Kassambara, 2017).

Sex differences have been identified in the case of driver behavior, where there is a tendency for men to have higher scores on drivers Try Hard and Be Strong. Such statistically significant differences can be explained by the cultural characteristics, primarily by the dominance of masculinity (Stojanović et al., 2013) in culture from which respondents are. The results of the univariant analysis indicate that sex does not have a role in differences in relation to the dimensions of life positions, that is, the life positions are equally represented in both men and women.

Conclusion

The aim of this research is determination of relation between constructs of two psychological theories: Attachment theory and Transactional analysis. Theoretical relationship of constructs attachment patterns, life positions and drivers are shown in introductory part. Looking back at all data, it is obvious that relation between certain attachment theory constructs and transactional analysis exists. It is evident that there is a greater accordance between attachment styles, on the one hand, and life positions, on the other. Such accordance, in terms of results, can also be explained by the theoretical framework, a much clearer connection between these two constructs, but between attachment styles and the drivers. Likewise, the instrument used to measure the dimensions of life positions, i.e. the formation of life positions based on the dimensions of life positions (subscales); on this sample has better psychometric properties than the instrument used to estimate the drivers. Recommendation of authors of this research, for some

further researches, is to use different scale for attachment measurement, scale that contains additional dimensions (e.g. rage regulation or mentalization capacity), which can, in a better way, reveal relation of driver behaviors regarding to IWM of self and other. The other recommendations also applies on scales, it is recommended to try using another scale, than one that authors used in this research, for drivers measurement, because this one is not enough informative, which complicates comparisons.

References

- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: a test of a four-category model. *Journal of personality and social psychology*, 61(2), 226-244.
- Berne, E. (1973). *Games People Play: The Psychology of Human Relationships*. London, United Kingdom: Penguin UK.
- Boholst, F. A., Boholst, G. B. & Mende, M. M. B. (2005). Life Positions and Attachment Styles: A Canonical Correlation Analysis, *Transactional Analysis Journal*. In press.
- Bowlby, J. (1960). Separation Anxiety. *International Journal of Psychoanalysis*, 41, 89-113.
- Bowlby, J. (1983). *Attachment and loss* (2nd ed.). New York, New York: Basic Books.
- Budiša, D. (2009). Relacije transakciono-analičkih koncepata Zabrana, reket-osećanja i egzistencijalnih Pozicija kod nekliničke i kliničke populacije. (Magistarski rad). Novi Sad, Republika Srbija: Univerzitet u Novom Sadu.
- Core Team (2013). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <http://www.R-project.org/>.
- Cumming, G. (2012). *Understanding the new statistics: Effect sizes, confidence intervals and meta-analysis*. New York, New York: Taylor and Francis Group.
- Dunn, T., Baguley, T., & Brunsdon, V. (2014). From alpha to omega: A practical solution to the pervasive problem of internal consistency estimation. *British Journal of Psychology*, 105(3), 399-412.
- Field, A. (2009). *Discovering statistics using SPSS*. London, United Kingdom: SAGE Publications.
- Franceško, M., Kosanović, B., & Kajon, J. (2005). Radni stilovi kao prediktori načina rukovođenja, saopštenje na 17. Međunarodnoj konferenciji "Dani Ramira i Zorana Bujasa", Zagreb, 2005. Zagreb: Filozofski fakultet Zagreb.
- Frojd, S. (2016). *Kompletan uvod u psihoanalizu*. Podgorica, Crna Gora: Nova knjiga.
- Gellert, S. D. (1975). Drivers. *Transactional Analysis Journal*, 5(4), 422-425. <https://doi.org/10.1177/036215377500500425>.
- Goulding, R. L., & Goulding, M. M. (1976). Injunctions, decisions, and redecisions. *Transactional Analysis Journal*, 6, 41-48. <https://doi.org/10.1177/036215377600600110>.

- Hanak, N., & Dimitrijević, A. (2013). A Serbian Version of Modified and Revised Experiences in Close Relationships Scale (SM-ECR-R). *Journal of Personality Assessment*, 95(5), 1-9.
- Hay, J. (1992). *Transactional Analysis for Trainers*. Hertford, United Kingdom: Sherwood Publishing.
- Hay, J. (1997). Transformational Mentoring: Using Transactional Analysis to Make a Difference. *Transactional Analysis Journal*, 27 (3), 158-167.
- IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.
- JASP Team (2018). JASP (Version 0.8.6)[Computer software].
- Kahler, T. & Capers, H. (1974) The Miniscript *Transactional Analysis Journal*, 4(1), 26-42. <https://doi.org/10.1177/036215377400400110>.
- Kahler, T. (1975). Drivers: The Key to the Process of Scripts. *Transactional Analysis Bulletin*, 5(3), 280–284. <https://doi.org/10.1177/036215377500500318>.
- Kassambara, A. (2017). *Practical guide to cluster analysis in R: Unsupervised machine learning*. STHDA: Online izdanje.
- Klein, M. (1987) How to Be Happy Though Human. *Transactional Analysis Journal*, 17(4), 152-162. <https://doi.org/10.1177/036215378701700405>.
- Klein, M. (1992) The Enemies of Love. *Transactional Analysis Journal*, 22(2), 76-81. <https://doi.org/10.1177/036215379202200203>.
- Charrad, M., Ghazzali, N., Boiteau, V., & Niknafs, A. (2014). NbClust: An R Package for Determining the Relevant Number of Clusters in a Data Set. *Journal of Statistical Software*, 61(6), 1-36. URL <http://www.jstatsoft.org/v61/i06/>.
- Pitman, E. (1982). Transactional Analysis: an Introduction to its Theory and Practice. *The British Journal of Social Work*, 12(1), 47-63. <https://doi.org/10.1093/>.
- Stefanović –Stanojević, T. (2002). Bliske partnerske veze. *Psihologija*, 35(1-2), 81-97.
- Stefanović- Stanojević, T. (2004). Adult attachment and prediction of close relationships, *Scientific Journal Facta Universitatis*, 3(1), 67-81.
- Stefanović-Stanojević, T. (2006). Partnerska afektivna vezanost i vaspitni stilovi. *Godišnjak za psihologiju*, 4(4-5), 71-90.
- Stefanović-Stanojević, T. (2008). *Rano iskustvo i ljubavne veze: teorija afektivnog vezivanja*. Niš, Republika Srbija: Filozofski fakultet u Nišu.
- Stefanović-Stanojević, T., & Hadži-Pešić, M. (2009). Transactional Analysis and Attachment theory: differences and/or similarity. *Teme*, 33(4), 1231-1246
- Stefanović-Stanojević, T. (2011). *Afektivna vezanost: razvoj, modaliteti i procena*. Niš, Republika Srbija: Filozofski fakultet u Nišu.
- Steiner, C. (1990). *Scripts people live : transactional analysis of life scripts*. New York, New York: Grove Weidenfeld.
- Stewart, I., & Joines, V. (1987). *T A Today: A New Introduction to Transactional Analysis*. Nottingham, England: Lifespace Publishing.**
- Stjuart, I. (2012). *Kako Voditi savetovanje i psihoterapiju u transakcionoj analizi* (3. Izdanje) Novi Sad, Republika Srbija: Psihopolis Institut.

- Stojanović, D., Zeba, R., & Markov, Z. (2013). Pojam rodnosti u tradicionalnoj kulturi sa osvrtom na suvremeni društveni kontekst. *Metodički obzori*, 19, 92-104.
- Tadić, O., Jokić, I., Marijanović, B., & Pivašević, N. (2015). Afektivna vezanost i životne pozicije. (Neobjavljen naučni rad). Filozofski fakultet, Banja Luka.
- Tudor, K. (2008). "Take it": A sixth driver. *Transactional Analysis Journal*, 38(1), 43–57. <https://doi.org/10.1177/036215370803800107>.
- Van Ijzendoorn, M. H., & Kroonenberg, P. M. (1988). Cross-Cultural Patterns of Attachment: A Meta-Analysis of the Strange Situation. *Child development*, 147-156. <https://doi.org/10.2307/1130396>.

Appendix

Appendix 1. Representation of drivers, driver behaviors, consequences of drivers on behaviour and driver behaviors in work organizations

Driver	Driver behavior	Driver consequences	Driver behavior in work organizations
Hurry Up	Think they have to do everything „right now“, which leads to them working too fast, talking fast and hurry others.	Can often be frustrated with others (because they are slow) and make mistakes because of hurry.	Looking for most efficient way to finish task in short deadline. Can do a lot of work and fast.
Be Perfect	Striving for perfection and expecting others to be just the same	Becoming too critical while striving for perfection and afraid of failure, losing control and critics from others.	Work precisely and reliably, organized, plan ahead, pay attention to details
Try Hard	Often work hard and demand the same from others, but rarely reach desired and targeted goal.	Prone to burnout syndrome, take critique personally, seek praise from others but are rarely satisfied with them	They get to work with enthusiasm and are motivated for new and different tasks
Be Strong	They perform rationally and emotionally „cold“ and rarely show signs of excitement	Frustrated by weaknesses of others, not showing signs of emotions while under stress (denying that they are under stress) which can lead to „exploding“ towards others	Have energy for tough tasks, stay calm under pressure, reliable, give honest feedback and good supervisors
Please Others	Have feeling that they have to do anything to make others feel good, seek to be liked and accepted by others	They worry too much about whether they are accepted or not, they are not assertive and have problem saying „no“ to tohers.	Good team members, empathical and understanding. They contribute to strenghtening of harmony and cohesion of the group. They are good in interpreting non-verbal signs, and can interpret certain signals that others do not notice.

Petar Mrđa

Kasandra Ribić

Danilo Bodroža

Univerzitet u Banjoj Luci, Filozofski fakultet

ODNOS IZMEĐU STILOVA VEZANOSTI, ŽIVOTNIH POZICIJA I DRAJVERA

Sažetak

Teorija vezanosti i transakciona analiza predstavljaju dva psihološka pristupa proučavanju emocionalnog razvoja pojedinca, kao i interakciji pojedinca sa ljudima iz njihovog okruženja i kvalitetu tih odnosa. Iako imaju različitu terminologiju i metodologiju, imaju određene aspekte teorijskog preklapanja. Svrha ovog rada je utvrđivanje odnosa nekih konstrukata ova dva pristupa - dimenzija i stilova vezivanja, drajvera i životnih pozicija. Uzorak se sastojao od 324 učesnika (50,6% žena). Korišćeni su sledeći instrumenti: za procenu dimenzija vezanosti - SM-ECR-R, za procenu drajvera - Working Style Questionnaire i za operacionalizaciju životnih pozicija - Skala životnih pozicija. Rezultati multivarijantne analize varijanse pokazuju da postoje statistički značajne razlike između stilova vezanosti i drajvera ($F(10, 628) = 2,51, p < .01, \text{Wilk's } \lambda = .92, \hat{\epsilon}^2 = .04$), kao i između stilova vezanosti i životne pozicije ($F(8, 630) = 17.82, p < .001, \text{Wilk's } \lambda = .67, \hat{\epsilon}^2 = .19$). Zaključak ovog rada je da stilovi vezanosti postižu delimično očekivani odnos sa konstruktima transakcione analize, ali postoje određene nedoslednosti koje nisu u skladu sa teorijskim očekivanjima.

Ključne reči: teorija vezanosti, transakciona analiza, stilovi vezanosti, drajveri, životne pozicije

UNDERSTANDING SUPERSTITION IN DEVELOPMENTAL CONTEXT OF ATTACHMENT

Abstract

The aim of this research is to examine the relations between attachment and superstition, and the probable impact of attachment in prediction of superstition, when the impact of external locus of control is controlled. The sample consisted of 342 respondents (m-108; f-234), mostly students (71.3%), and the rest consisted of employed (19.9%) and unemployed (8.8%) respondents, aged 18-49 ($M=25.36$; $SD=6.79$). Measuring instruments were: Superstition scale (Žeželj et al., 2009), Externality scale (Bezinović, 1990) and revised Adult Attachment Scale (Collins, 1996). Results show that Superstition is correlated with both dimensions of attachment, positively with Anxiety and negatively with Closeness/Dependency. Hierarchical multiple regression analysis was performed, with two sets of predictors. The first set consisted of dimension of Externality and it was a significant predictor of superstition. After the entry of dimension of attachment significant predictors of superstition are externality and anxiety. Dimension of attachment explained additional 1.1% variance of superstition, after the removal of the impact of externality. The results of research confirmed the hypothesis about the correlation between dimensions of attachment and superstition. When the impact of externality is controlled, dimensions of attachment do not significantly contribute to explaining superstition.

Key words: superstition, external locus of control, adult attachment

Introduction

Superstition

Literature suggests several definitions of superstition. Campbell (1996) argues that superstitious behavior differs from religious and he considers it to be irrational belief of members of a given society and distinguishes modern and primitive superstitions. Modern superstition has prevailed in Western culture despite the fact that this culture embraces rational thinking. Malinowski (1925) in his essay "Magic, Science and Religion" explains superstitious beliefs as a way of coping with unpredictable and uncertain events. For example, he gives a very illustrative example of different kinds of fishing used by Trobriand islanders (Malinowski, 1925, p.31): "It is most significant that in the lagoon, fishing where man can rely completely upon his knowledge and skill, magic does not exist, while

in the open-sea fishing, full of danger and uncertainty, there is extensive magic ritual to secure safety and good results." In order to understand this phenomena more deeply Campbell introduced the term "half-belief". This concept points out that mechanism in creation of a superstitious belief is a form of thinking that lacks rationality. Unlike the primitive structures of society and the need for such magical thinking, modern civilization does not really believe in superstition but still is influenced by superstitious thoughts and actions. Jahoda (1970) differentiates two kinds of superstition: "causal superstition" and "coincidental superstition". The first form of superstition is recognized in the theoretical context of Skinner's learning theory and can be understood as misperception of causality. The latter, is found in connecting natural phenomena with gods recognized in ancient religions and cultures such as Roman. The fears from the unpredictable, uncertain, incomprehensible can be seen as the root of need for superstitious belief (McCartney, 1952).

External locus of control

Rotter's theory of locus of control has its foundations in social learning theory. Reinforcement from social surroundings can be seen as luck, chance or fate by external individuals or can be perceived as direct product of individual's actions, abilities or behavior (Rotter, 1954). Locus of control, as Rotter (1966) put it, can influence various behaviors in many situations. The locus of ego control is constituted based on the position that individual is in relation to a particular role, situation or event (Rotter, 1966). Locus of control can be seen as the level on which person is taking life events as products of chance, luck or fate or other external sources (Sheidt, 1973) and refers to the extent to which an individual attributes personal life events to external factors or other people. In this context, *control* is being expressed in different ways such as: control perception, self-sufficiency, learned strangeness/weakness, and causative attribution. Locus of control reflects individual's perception of the causation and responsibility attribution (Bacanli, 2002). Rotter (1975) defines locus of control as inclination to affiliate the good or bad events that affect individual to variables such as her/his abilities, traits, faith, or other people and argues that locus of control can be seen as dichotomy that is based on the degree of responsibility the individual is taking upon any life event on daily basis.

Distinction between externals and internals is that individuals with internal locus of control believe that they have certain control over what happens in their life unlike the externals who believe that luck or other external forces are responsible for life events, more than themselves (Rotter, 1966). Individuals with internal locus of control believe that life events are product of their own actions. Unlike the internals, individuals with external locus of control see life events as result of external forces, luck or destiny. Rotter somewhat gives another instrumental perspective: for internals, specific behavior or action can and will

be rewarded from the surroundings. On the other hand, externals believe that such rewards are uncontrollable by the individual and are result of luck or destiny (Rotter, 1966).

Attachment

Attachment is one of the most popular and widely used theoretical concepts in the context of developmental psychology (Holmes, 2004). Author of this concept, English psychoanalyst John Bowlby, contributed during the 1950's to the field by coming up with attachment theory and defines it as "specific relation which is formed in the early childhood between the child and the object of attachment and persists through life, as permanent psychological relationship between the mother and the child" (Bowlby, 1988; according Stefanović-Stanojević, 2015). Fundamental core for this idea can be found in psychoanalytic approach, specifically in the theory of object relation, also evolution theory, control system theory and in some areas of cognitive psychology (Bowlby, 1988).

One of the crucial and confirmed hypothesis regarding the attachment theory is that the specific pattern of behavior formed in early childhood can still be relevant in present state, and it is important when it comes to the quality and the content of the relationships we have with other people which can be seen as the underlying idea of this attachment theory (Bowlby, 1988). Early childhood experiences can influence later development and be used to explain specific type of present behaviors (Bowlby, 1988). The thing that change through aging is the hierarchical structure of relations and it moves from family to peer group and later to the partners that we engage in relationships with (Stefanović-Stanojević, 2011).

Quality of the attachment is highly influenced by the responsiveness of the environment (De Wolff & Ijzendoorn, 1997). Parents can play a major role in the child's differentiation between the internal and external world. If they leave enough space for the child to experiment with his/her surroundings and develop inner system of autonomous thinking, that can be seen as a pathway to individuation. If the child is missing these elements, that can lead to difficulties in developing a sense of differentiation from the external world (Stefanović-Stanojević, 2011).

Through everyday repetitive and complementary actions, in the sense of affective transactions in the early childhood, a specific emotional relationship forms between the child and the caregiver. Whether the caregiver is responsively meeting the needs of the child is crucial for forming child's image of himself/herself, as someone who is worthy of mother's attention - *internal working model of himself/herself*; and mother's responsiveness to the child's needs and impression that she is available when needed - *internal working model of others* (Bretherton & Mullholand, 2008). The functioning of the internal working model is based on automatic reactions behavioral mechanisms in specific situations which are formed on cognitive and affective structures of the early childhood experience. Internal working models can be seen as factors which can make prediction of

future behaviors (Van Ijzendoorn, 1995). Modification of the internal working models requires a lot of time and can be seen in the light of its sustainability through life (Ainsworth, 1979; Van Ijzendoorn, 1995). Other researches emphasize the fact that although there is persistency of these models through life that doesn't necessarily mean that such models are unchangeable (Davila, Burge & Hammer, 1997). For example, exposure to relationships that are qualitatively different from the early one we had can lead to changing the perspective and image we have about ourselves and the significant others (Lopez & Gormley, 2002; Zhang & Labouvie-Vief, 2004).

Attachment can be seen from the categorical or dimensional approach. Kim Bartholomew suggests the dimensional approach that is widely used today, in which we can differentiate two bipolar dimensions: complementary representation of the model of self is the *dimension of Anxiety* – which is characterized as vigorous need for affection and closeness, fear of being abandoned or being unloved, etc.; and the second dimension is the model of others, *dimension of Avoidance* – which refers to the degree the individual is capable of forming close relationships with others. This dimensional approach is based on Bowlby's assumption of existence of internal working models (Bowlby, 1973; according to Stefanović-Stanojević, 2015).

Previous research

Past studies emphasize the fact that the initial relationship between the child and the caregiver is important in terms of cognitive and emotional development. Main and colleagues found that internal working models along with cognition and emotions still make impact on memory and perception (Main, Kaplan & Cassidy, 1985). According to some studies, the child with less responsive parents is prone to difficulty in developing in area of cognitive functioning (Loudermilk, 2007).

Bowlby (1982) confirmed Rotter's concept of locus of control. But the studies that directly examine this correlation between attachment and locus of control are quite few (Mickelson, Kessler & Shaver, 1997). Literature suggests that there are shared attributed traits such as: responsible, having the ability to solve problems effectively, organized, systematic, resistant, self-assured, success oriented that can be recognized in individuals with internal locus of control and secure attachment style. Following this statements it can be said that individuals with secure attachment style, compared to insecure ones, are more internally oriented when speaking in terms of locus. Literature review supports this assumption (Hexel, 2003; Marsa, Reilly, Murphy, Sullivan, Cotter & Hevey, 2004; McMahon, 2007).

Following Rotter's conception of locus of control, about the generalized expectations related to causal location where the reinforcement comes from, individuals who attribute responsibility for events in their life solely to their capacity, actions or skills can be seen as internally focused individuals and those

are less likely to manifest superstitious beliefs or behavior, unlike the externals who attribute responsibility for events in their lives to fate, destiny, luck or chance and show greater degree of superstitious behavior (Jahoda, 1970). Superstitious beliefs generally reflect particular expectations about destiny, luck or even external forces that can contribute and influence life events. Some aspects of superstitious behavior can be common, or even recognized in daily activities but behind them there can't be found any empirical evidence that can justify such acts. These phenomena can stay in the domain of description without any logical background that can give deeper or more understandable meaning to them (Schick & Vaugn, 2002). Social learning theory tries to merge and combine behavioral learning and cognitive theories (Rotter, 1975). In psychologist circles under the influence of Skinner's learning theory of reinforcement there was a conceptualization that superstition arises from response-independent reinforcement. In that period, behavior oriented psychology tried to explain and solve this phenomenon called superstition. Catania (1968) defined superstition as "the modification or maintenance of behavior as a consequence of accidental (also adventitious, incidental, or spurious) relationships between respondents reinforcements, as opposed to those that are either explicitly or implicitly arranged" (p. 347). Locus of control refers to the extent to which an individual attributes personal life events to external factors or other people and it is found that superstition correlates with belief in paranormal and supernatural in many studies (Belter & Brinkmann, 1981; Irwin, 1994; Groth-Marnat & Pegden, 1998; Peterson, 1978). According to Irwin (1994), any kind of paranormal belief is just a way of coping with life's unpredictability, taking into account the circumstances that we live in today's world.

One of the earlier studies by Jenkins and Ward (1965) shows that subjects based their judgment of the contingency between outcome and response upon how often the two occurred together, and not on causal relationship between the two of them, and explain such result as a consequence of people not being good at judging, but still seeking and trying to remain in control of outside events. An individual becomes highly motivated to gain control over life events. Some other researches like Wasserman and Neunaber (1986) in some earlier studies explain that superstitious behaviour simply arises by misperception of causal relations between stimuli and response. This assumption is supported by Zeiler (1972) who claims that temporal connection between stimuli and reinforcement is crucial in structuring superstitious belief and behavior patterns. Locus of control refers to the extent to which an individual attributes personal life events to external factors or other people, as a product of chance, luck or fate (Scheidt, 1973).

Langer (1975) addresses this question as illusion of control in human beings and argues that individuals are motivated to control their environment by gaining mastery over it, ability to break the odds and control it which can lead to anxiety reduction when challenged with uncertain results. In this context, superstition can give the individual the sense that what is happening to them is understandable

and explainable, and most importantly, that it is predictable. Therefore, when uncertain events can be predictable that leads to anxiety reduction and the individual feels like he/she has some control over the situation and in that sense superstitious belief manifests as an illusory control of the situation.

The aim of this research is to examine the relations between attachment and superstition, and the probable impact of attachment in prediction of superstition, when the impact of external locus of control is controlled.

H1: There is significant positive correlation between superstition and externality.

H2: There is significant negative correlation between the dimension of Anxiety and Superstition.

H3: There is significant positive correlation between the dimension of Closeness/Dependency and Superstition.

H4: The dimensions of attachment can be significant predictors of Superstition, when the impact of Externality is controlled.

Method

The problem of the study

Superstition can be defined as an irrational or groundless belief. A person with positive self-image won't have the need for approval from the surroundings. Next, relationships with others are based on closeness and trust. On the other side, a person with negative self-image can seek confirmation in the surroundings and can be potentially prone to, in exchange for positive self-image, accepting the explanation which can be unreal and unfounded. Confirmed connection between superstition and the external locus of control, leaves a lot of space for probable impact of development factors as addition for understanding superstition, behind externality which proposes beliefs that the events are the product of chance, luck, or the influence of other people.

Sample

The sample is convenient and consisted of 342 respondents. We managed to question 234 females and 108 males. In the sample, mostly students were included (77,3%), while the rest consisted of employed (19.9%) and unemployed people (8.8%). Participants' age ranged between 18 and 49 years ($M=25.36$; $SD=6.79$). Data was mostly collected online.

Variables and Measures

Superstition scale (Žeželj, Pavlović, Vladislavljević & Radivojević, 2009).

This instrument assessing tendency towards superstition-related beliefs and behavior; considered and analyzed superstition as an attitude (with its affective, cognitive and behavioural components) toward specific objects of a superstition.

This is a one-dimensional scale with 20 items. Participants gave answer to five-grade Likert scale ranging from "1" (strongly disagree) to "5" (strongly agree). This scale shows reliability measured by Cronbach alpha of .87 (Žeželj et al., 2009). Example of an item: "Knocking on wood protects me from bad things happening".

Externality scale (Bezinović, 1990). This scale is one-dimensional and composed of 10 items and operationalizes the construct of externality. Respondents gave answers to five-grade Likert scale. Items reflect a fatalistic orientation – what happens to an individual and all the outcomes of his/her behavior are attributed solely to fate and the corresponding circumstances. This scale shows reliability measured by Cronbach alpha of .80 (Mladenović & Knebl, 1999). Item example: "Bad things happen to me because I don't have any luck".

Revised Adult Attachment Scale (Collins, 1996). This instrument is used for attachment measurement of adults. Items examine the general notion of relationship between individual and significant others. Respondents were instructed to think about their past and current relationships with significant others, family members, relationship partners or close friends. Respondents gave answer to a five-grade Likert scale. Instrument consisted of 18 items and measured two dimensions: *Anxiety* – which consisted of items reflecting anxiety in relationships, such as fear of being abandoned and not being loved. Item example: "I often worry that my partner does not really love me"; *Closeness/Dependency* contained items regarding the extent to which subjects were comfortable with closeness and intimacy and concerning the extent to which subjects could trust others and depend on them to be available when needed. Item example: "I do not often worry about someone getting too close to me". The dimension of *Anxiety* represents the negative working model of self, and *Closeness/Dependency* represents positive model of others. On the initial sample Cronbach's alpha for the *Closeness/Dependency* was .72 and for the *Anxiety* .72 (Collins, 1996).

Data analysis

Statistic analysis will be processed by SPSS 21.0. We used the following statistic procedures: descriptive statistics measures (mean, standard deviation, range, skewness, kurtosis), Cronbach's alpha coefficient for estimation of reliability of used scales, correlation techniques (Spearman coefficient of correlation) and hierarchical multiple regression.

Results

In the text below we will show the results of the statistical techniques used for examining the hypothesis we set. Table 1 shows the descriptive statistical indicators of the variables we used in the research. Descriptive statistics shows that scales are reliable and not normally distributed.

Table 1. *Descriptive Statistics measures, distribution skewness and kurtosis and measures reliability*

	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	<i>Sk</i>	<i>Ku</i>	<i>Sig. of K-S</i>	<i>α</i>
Superstition	1.20	4.10	2.36	.65	.31	-.51	.01	.81
Externality	1.00	4.90	2.57	.90	.14	-.71	.01	.88
Anxiety	1.00	5.00	2.50	.99	.44	-.49	.00	.85
Close/Depend	1.42	4.92	3.18	.69	-.17	-.49	.00	.81

In order to inspect the intercorrelations between the Superstition, Externality and dimensions of Attachment we used Spearman's coefficient of correlation.

Table 2. *Spearman's coefficient of correlation between the Superstition, Externality and dimensions of Attachment*

	Superstition	Externality	Anxiety	Close/Depend
Superstition	-	.57**	.32**	-.12*
Externality	.57**	-	.38**	-.20**
Anxiety	.32**	.38**	-	-.43**
Close/Depend	-.12*	-.20**	-.43**	-

Note: ** - $p < .01$; * - $p < .05$;

Results (Table 2) show that Superstition is in a positive and moderate correlation with Externality and that Superstition is correlated with both dimensions of Attachment. Superstition is in moderate positive correlation with the Anxiety and in low negative correlation with the Closeness/Dependency dimension of Attachment.

In order to better understand the connection between Attachment and Superstition, when the contribution of Externality is controlled a two-step hierarchical regression was conducted with Superstition as dependent variable (Table 3). In the first step Externality was entered first, taking into account previous theoretical concept and the Attachment variables (Anxiety and Closeness/Dependency) were entered in second step.

Table 3. *Prediction model with the data of correlations between predictors and criterion variable, percentage of variance explained and F statistics.*

	Predictors	<i>R</i>	<i>R</i> ²	<i>Df</i>	<i>F</i>	<i>R</i> ² Change	<i>F</i> Change	<i>Sig. F</i> Change
<i>Model I</i>	Externality	.56	.32	(1, 337)	157.03***			
<i>Model II</i>	Externality Anxiety Close/Depend	.57	.33	(3, 335)	54.83***	.01	2.86	.06

Note: *** - $p < .001$; *R* - coefficients of correlation; *R*²- coefficients of determination

Model I shows that Externality explains 32% of Superstition variance and this model is statistically significant. Between the criterion and predicting variable there is medium linear correlation ($R=.56$). Model II, beside Externality includes both dimension of Attachment and explains 33% of the Superstition variance is also statistically significant. Results show that there is medium linear correlation ($R=.57$) between the criterion and linear combination of predictors. Put in this way, results ultimately show that dimensions of Attachment explain additional 1.1% of Superstition variance once the impact of Externality is being controlled but that change is not significant (*Sig, F Change=.059*).

Table 4. *Partial contribution of predictors in explaining the variance of the criterion variable.*

	β	r_o	$r^2_{a(b,c)}$
<i>I set of predictors:</i>			
Externality	.56***	.56	.32
<i>II set of predictors:</i>			
Externality	.52***	.56	.23
Anxiety	.12*	.32	.01
Close/Depend	.03	-.13	.00

Note: β - standardized beta; r_o - zero-order correlation; $r^2_{a(b,c)}$ - squared part correlation; *** - $p < .00$; * - $p < .05$;

Results of hierarchical regression analysis (Table 4) show that the dimension of Externality, in the first stage of regression, is a significant medium and a positive predictor of Superstition ($\beta=.56$; $p < .00$) and squared part correlation shows that Externality independent explains 32% of criterion variable variance. In second stage, after the entry of both dimension of Attachment, the dimension of Externality remains significant predictor of Superstition ($\beta=.52$; $p < .00$) and Anxiety ($\beta=.12$; $p < .05$), while the dimension of Closeness/Dependency can't be considered a significant predictor of Superstition. After adding both dimensions of Attachment the unique contribution of the dimension of Externality is reduced, and significant part of the variance now is being shared with both dimensions of Attachment.

Discussion and conclusion

Our research was based on theoretical approaches and previous studies, about the correlation between external locus of control and superstition. Results of our study show that there is significant moderate positive correlation between externality and superstition. Such findings are complementary with previous empirical data. Stanke and Taylor (2004) found a low but significant correlation between Superstition and external locus of control. Another study on adolescent population found that among older adolescents there was negative correlation

between internal locus of control and superstition and positive correlation between external locus of control and superstition among the younger ones (Sagone & De Caroli, 2014). Vyse (2000) suggests that non-clinical population is prone to various kinds of irrational and superstitious beliefs in order to gain or maintain control over life events that can be seen as unpredictable and uncontrollable. Following this statement superstition can be seen as mechanism which is used when the individual is challenged with uncertain and unpredictable events.

One of the main goals of this research was to determine whether there is statistically significant correlation between superstition and both dimensions of attachment (Anxiety and Closeness/Dependency). Our assumption is that individuals with negative internal working model will seek confirmation in their surroundings and can show tendency to accept various unreal and unfounded explanations of the world in order to maintain a positive self-image. On the other hand, individuals with positive working models (positive self-representation) form relations with others which are based on trust and closeness and don't have such need to seek approval from the surroundings.

Results of our study show that Superstition has positive and moderate correlation with the Anxiety. High scores on the Anxiety dimension imply more self-doubt which causes constant seeking of validation and conformation in order to establish sense of security and self-worth, maintain positive self-image or establish control over unpredictable life events. This individuals are prone to embracing superstitious beliefs and behaviors. The low capacity to gain control or change behavior or action if needed when challenged with difficult events that seem to be unpredictable and possibly diminishing for their emotional and psychological well-being and might be regulated by irrational and superstitious beliefs and behavior. High scores on Closeness/Dependency dimension suggest positive view of others and the individuals exhibiting this are: more altruistic and more able to control the outcomes in their lives and are comfortable expressing trust and intimacy and feel others are available when needed which essentially leads to forming stable self-image, and a greater level of quality in relationships with others. These individuals don't have such a strong need for compensatory processes of superstitious behavior.

By establishing connection between externality and superstition we met the criteria for executing hierarchical regression analysis with two sets of predictors for examining our next hypothesis. This research examines if phenomena of Superstition can be predicted by Attachment once the impact of locus of control is controlled. Confirmed connection between superstition and the external locus of control leaves a space for probable impact of development factors as addition for understanding superstition, behind externality which propose beliefs that the events are the product of chance, luck, or the influence of other people. Previous research found a link between superstition and irrational belief tendencies (Tobacyk & Milford, 1983) and a need to cope with life's unpredictability (Edis, 2000; Hughes, 2002). In several observation researches using observational Adult

Attachment Interview (AAI) by Main and colleagues, adults with dismissing and unresolved-disorganized attachment style were prone to "unusual" beliefs about the nature of space-time, physical reality, causality and abilities beyond the normal means of control (Sagi, Van Ijzendoorn, Joels & Scharf, 2002) and those unusual beliefs can be seen as attempts to minimize negative effect of early childhood traumas by making them more understandable, predictable and ultimately more controllable. Such claims are complementary with Irwin psychodynamic function hypothesis. Furthermore, Irwin argues that this kind of belief can be activated under stressful events in the individual's surroundings in which he/she has no control (Irwin, 2009; Watt, Watson & Wilson, 2007). According to Irwin and his Psychodynamic Function Hypothesis paranormal and superstition beliefs can be products of trauma during childhood or poor parenting. Negative childhood experience can contribute to developing an unconscious mechanism in believing in precognition, extrasensory perception or clairvoyance for a future event before it happens. This type of belief can be seen as coping with certain feelings of insecurity, helplessness or need for heightened control (mastery) over the surroundings. Main, Kaplan and Cassidy (1985) suggested that individual difference in the attachment can be seen as differences in the mental representation of the self. Internal working models are associated not only with behaviour and feelings, but also attention, memory and cognition. Attachment might reflect certain patterns of behaviour, shape cognitive-affective representation termed "internal working models" (IWM). IWM are direct product of quality of relationship between child and the caregiver during infancy and early childhood. In our research attachment was operationalized by two dimensions: Anxious that represents negative internal working model of self and Closeness/Dependency that represents positive working model of others. Kirkpatrick develops a hypothesis that insecure adults are prone to believing in different kinds of religious, spiritual relationship with God, as surrogate attachment figure giving those individuals sense of security during time of strong distress called *compensation hypothesis*. For the non-theist, according to Irwin, this is replaced with various kinds of superstitious beliefs which serve coping function (Irwin, 2009). Another study points out that anxiously attached individuals are attracted to esoteric materials which in some way gives them meaning and can be used as the regulator of different unwanted and unpleasant emotional states (Buxtant, Saroglou & Tesser, 2010). According to Granqvist's *emotional compensation hypothesis* (Granqvist & Hagekull, 2001; Granqvist et al., 2007) such forms of action and behaviour which can be understood as superstitious have one main goal: to give sense of emotional stability and contribute to psycho-emotional wellbeing, sense of control over unpredictable life events. IWM can be seen as background in which personality, self-esteem and ability to have feelings of grounding and fulfilment of certain needs for security and safety are developed (Kirkpatrick, 1992). Following these statements, we hypothesized that Attachment dimensions Anxiety and Closeness/Dependency will be significant predictors of Superstition. Our results confirmed our assumption

that the dimension of *Anxiety* is solely making small but significant prediction of superstition which is complementary with past studies. Dimension of Closeness/Dependency doesn't have any significance in prediction of superstition. Results of the regression model (see Table 3) point out that both dimensions of Attachment explain only a small percentage of the Superstition variance when controlled for the influence of the dimension of Externality. In the context of our research results, attachments compared to the external locus of control don't have such relevant impact in embracing superstitious beliefs.

This study confirmed our first assumption about the relation between superstition and attachment. Results did not confirm our second assumption that attachment has predicting power of superstition once the impact of externality is being controlled. Externality and the dimension of attachment share 10% of the variance. We can conclude that Superstition can be predicting based on externality without the dimension of Attachment. We underline the fact that research was conducted on non-clinical population with no evidence of serious maltreatment during early stages of development and clear psychopathological symptoms. We suggest the same statistical analysis for clinical sample, where beside Superstition, paranormal belief and behaviour can also be examined.

References

- Ainsworth, M. S. (1979). Infant–mother attachment. *American psychologist*, 34(10), 932-937.
- Bacanli, H. (2002). *Development and learning*. Ankara: Nobel Yayınevi.
- Belter, R. W. & Brinkmann, E. H. (1981). Construct validity of the Norwicki-Strickland Locus of Control Scale or Children. *Psychological Reports*, 48, 427-432.
- Bezinović, P. (1990). Skala ekternalnosti (lokus kontrole). U: N. Anić (Ur.), *Praktikum iz kognitivne i bihevioralne terapije III* (str. 155-157). Zagreb: Društvo psihologa Hrvatske.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1988). *A secure base*. New York: Basic Book.
- Bretherton, I. & Munholland, K. A. (2008). Internal working models in attachment relationships: Elaborating a central construct in attachment theory (pp. 102-127). In J.
- Buxant, C., Saroglou, V. & Tesser, M. (2010). Free-lance spiritual seekers: Self-growth or compensatory motives? *Mental Health, Religion & Culture*, 13(2), 209-222.
- Campbell C. (1996), Half Belief and the Paradox of Ritual Instrumental Activism: A Theory of Modern Superstition. *The British Journal of Sociology*, 47, 1, 151-166.
- Catania, A. C. (1968). *Contemporary Research in Operant Behavior*. Oakland, NJ: Scott, Foreman, and Company.
- Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, 71(4), 810-832.

- Davila, J., Burge, D. & Hammen, C. (1997). Why does attachment style change? *Journal of personality and social psychology*, 73(4), 826.
- De Wolff, M. & Van Ijzendoorn, M. H. (1997). Sensitivity and Attachment: A Meta-Analysis on Parental Antecedents of Infant Attachment. *Child Development* 68(4), 571-91.
- Edis, T. (2000). The rationality of an illusion. *Humanist*, 60, 28-33.
- Granqvist, P., & Hagekull, B. (2001). Seeking security in the New Age: On attachment and emotional compensation. *Journal for the Scientific Study of Religion*, 40, 529 –547.
- Granqvist, P., Ivarsson, T., Broberg, A. & Hagekull, B. (2007). Examining relations among attachment, religiosity, and New Age spirituality using the Adult Attachment Interview. *Developmental Psychology*, 43(3), 590-601.
- Groth-Marnat, G. & Pegden, J. A. (1998). Personality correlates of paranormal belief: Locus of control and sensation seeking. *Social Behavior and Personality*, 26(3), 291-196.
- Hexel, M. (2003). Alexithymia and attachment style in relation to locus of control. *Personality and Individual Differences*, 35, 1261-1270.
- Holmes, J. (2004). *John Bowlby & Attachment theory*. London and New York: Routledge.
- Hughes, C. (2002). Medicine and magic. *Student BMJ*, 10, 132-133.
- Irwin, H. J. (1994). Paranormal belief and proneness to dissociation. *Psychological Reports*, 75, 1344-1346.
- Irwin, H. J. (2009). *The psychology of paranormal belief: A researcher's handbook*. Hatfield: University of Hertfordshire Press.
- Jahoda, G. (1970). Supernatural beliefs and changing cognitive structures among Ghanaian university students. *Journal of Cross-cultural Psychology*, 1, 115-130.
- Jenkins, H. M. & Ward, W. C. (1965). Judgment of contingency between responses and outcomes. *Psychological Monographs*, 79(1), 594.
- Kirkpatrick, L. A. (1992). An attachment-theory approach to the psychology of religion. *International Journal for the Psychology of Religion*, 2(1), 3-28.
- Langer, E. J. (1975). The illusion of control. *Journal of Personality and Social Psychology*, 32, 311-328.
- Lopez, F.G. & Gormley, B. (2002). Stability and change in adult attachment style over the first-year college transition: relations to self-confidence, coping, and distress patterns. *Journal of Counseling Psychology*, 49 (3), 355-364.
- Loudermilk, S. M. (2007). *Early Attachment Security: Relations with Cognitive Skills and Academic Achievement*. Greensboro: The University of North Carolina
- Main, M., Kaplan, N. & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. *Monographs of the Society for Research in Child Development*, 50(1-2), 66-104.
- Malinowski, B. (1925). "Magic, science and religion", in *Magic, Science and Religion, and other essays*, Long Grove, Illinois, Waveland, 1992 17-92.
- Marsa, F., Reilly, G., Murphy, P., Sullivan, M., Cotter, A. & Hevey, D. (2004). Attachment styles and psychological profiles of child sex offenders in Ireland. *Journal of Interpersonal Violence*, 19 (2), 228-251.

- McCartney, E. S. (1952). The Superstition about literal and figurative separation of persons. *Classical Journal*, 48(2), Nov. 74.
- McMahon, B. (2007). Organizational commitment, relationship commitment and their association with attachment style and locus of control. Unpublished master dissertation, Master of Science in Psychology, Georgia Institute of Technology, Atlanta.
- Mickelson, K. D., Kessler, R. C. & Shaver, P. R. (1997). Adult attachment in a nationally representative sample. *Journal of Personality Social Psychology*, 73 (5), 1092-1106.
- Mladenović, U. & Knebl, J. (1999). Religioznost, aspekti self-koncepta i anksioznost adolescenata. *Psihologija*, 1(2), 83-96.
- Peterson, C. (1978). Locus of control and belief in self-oriented superstitions. *The Journal of Social Psychology*, 105, 305-306.
- Rotter, J. B. (1954). *Social learning and clinical psychology*. New York: Prentice-Hall.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 609.
- Rotter, J. B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology*, 43, 56-67.
- Sagi, A., van IJzendoorn, M. H., Joels, T. & Scharf, M. (2002). Disorganized reasoning in Holocaust survivors: An attachment perspective. *American Journal of Orthopsychiatry*, 72, 194-203.
- Sagone, E. & De Caroli, M. E. (2014). Locus of Control and Beliefs about Superstition and Luck in Adolescents: What's their Relationship? *Procedia - Social and Behavioral Sciences*, 140, 318 – 323.
- Scheidt, R. J. (1973). Belief in supernatural phenomena and locus of control. *Psychological Reports*, 32, 1159-1162.
- Schick, T. Jr. & Vaughn, L. (2002). *How to think about weird things: Critical thinking for a new age (3rd ed.)*. USA: McGraw Hill Companies, Inc.
- Stanke, A. & Taylor, M. (2004). Religiosity, locus of control, and superstitious belief. *UW-L Journal of Undergraduate Research-VII*, 1-5.
- Stefanović-Stanojević, T. (2011). *Afektivna vezanost: razvoj, modaliteti i procena*. Niš: Filozofski fakultet.
- Stefanović-Stanojević, T. (2015). *Afektivna vezanost: razvoj, modaliteti i procena*. Niš: Filozofski fakultet.
- Tobacyk, J. J. & Milford, G. (1983). Belief in paranormal phenomena: Assessment instrument development and implications for personality functioning. *Journal of Personality and Social Psychology*, 44, 1029-1037.
- Van IJzendoorn, M. H. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the Adult Attachment Interview. *Psychological Bulletin*, 117(3), 387-403.
- Vyse, S. A. (2000). *Believing in Magic: The Psychology of Superstition*. Oxford University Press.

- Wasserman, E. A. & Neunaber, D. J. (1986). College students' responding to and rating of contingency relations: The role of temporal contiguity. *Journal of the Experimental Analysis of Behavior*, 46, 15-35.
- Watt, C. A., Watson, S. & Wilson, L. (2007). Cognitive and psychological mediators of anxiety: Evidence from a study of paranormal belief and perceived childhood control. *Personality & Individual Differences*, 42(2), 335-343.
- Zeiler, M. D. (1972). Superstitious behavior in children: An experimental analysis. In H.W. Reese (Ed.), *Advances in child development and behavior* (Vol. 7, pp. 1-29). New York: Academic Press.
- Zhang, F. & Labouvie-Vief, G. (2004). Stability and fluctuation in adult attachment style over a 6-year period. *Attachment & Human Development*, 6, 419-437.
- Žeželj, I., Pavlović, M., Vladislavljević, M. & Radivojević, B. (2009). Construction and behavioral validation of superstition scale. *Psihologija*, 42(2), 141-158.

Dorđi Đeorgiev & Tina Janjić

Univerzitet u Nišu, Filozofski fakultet

RAZUMEVANJE SUJVERJA U RAZVOJNOM KONTEKSTU VEZIVANJA

Sažetak

Cilj ovog istraživanja je da se ispita odnos između vezanosti i sujeverja i mogući uticaj vezanosti u predviđanju sujeverja, kada se kontroliše uticaj spoljnog lokusa kontrole. Uzorak je činilo 342 ispitanika (m-108; ž-234), većinom studenti (71,3%), a ostatak čine zaposleni (19,9%) i nezaposleni (8,8%) ispitanici, u dobi od 18 do 49 godina ($M = 25,36$; $SD = 6,79$). Merni instrumenti bili su: skala sujeverja (Žeželj i dr., 2009), skala eksternalnosti (Bezinović, 1990) i revidirana skala vezanosti za odrasle (Collins, 1996). Rezultati pokazuju da je sujeverje povezano sa obe dimenzije vezanosti, pozitivno sa anksioznošću i negativno sa blizinom / zavisnošću. Urađena je hijerarhijska multipla regresija, sa dve grupe prediktora. Prvi set sastojao se od dimenzije eksternalnosti i bio je značajan prediktor sujeverja. Nakon unosa dimenzija vezanosti, značajni prediktori praznovjerja su eksternalnost i anksioznost. Dimenzija vezanosti objašnjavala je dodatnu varijansu sujeverja od 1,1%, nakon uklanjanja uticaja eksternalnosti. Rezultati istraživanja potvrdili su hipotezu o povezanosti dimenzija vezanosti i sujeverja. Kada se kontroliše uticaj eksternalnosti, dimenzije vezanosti ne doprinose značajno objašnjavaanju sujeverja.

Ključne reči: sujeverje, spoljašnji lokus kontrole, vezanost kod odraslih

International Conference "Days of Applied Psychology" 2018
MODERN AGE AND COMPETENCIES OF PSYCHOLOGISTS
International Thematic Proceedings

Publisher
UNIVERSITY OF NIŠ
FACULTY OF PHILOSOPHY

For the publisher
Natalija Jovanović, PhD, Full Professor, Dean

Prof-reading
Authors

Cover design
Darko Jovanović

Technical Editing
Milan D. Randelović

Format
17 x 24 cm

Copies
150 CD-media

Electronic publication - Print run
Faculty of Philosophy

Niš, 2019

ISBN 978-86-7379-508-9

CIP - Каталогизacija у публикацији
Народна библиотека Србије, Београд

159.9(082)(0.034.2)
159.9-051:37(082)(0.034.2)

DAYS of Applied Psychology (14 ; 2018 ; Niš)
Modern age and competencies of psychologists
[Elektronski izvor] : international thematic proceedia
/ 14th Days of Applied Psychology 2018, Niš, Serbia,
September 29th & 30th 2018. ; [organised by]
University of Niš, Faculty of Philosophy, Department
of Psychology ; editors Jelisaveta Todorović, Vladimir
Hedrih, Stefan Đorić. - Niš : Faculty of Philosophy,
University, 2019 (Niš : Faculty of Philosophy)
Sistemski zahtevi : Nisu navedeni. - Nasl. sa naslovne
strane dokumenta. - Tiraž 150. - Foreword
/ Editors. - Bibliografija uz svaki rad. - Apstrakti.

ISBN 978-86-7379-508-9

а) Примењена психологија -- Зборници
COBISS.SR-ID 279666700

