SPECIAL SECTION

11th ALPS ADRIA PSYCHOLOGY CONFERENCE

September 18-20, 2014
University of Pécs
Hungary

Preface to the Special Section

The series of Alps-Adria Psychology Conferences has reached its 11th edition on 18-20 September, 2014 in Pécs, Hungary. By this time the conference has become a popular venue of presenting psychological research of the region. This is reflected in the high number of submitted oral presentations and posters whose abstracts are presented in this special issue. Contributions were all peer reviewed by two international experts.

In line with the tradition of the Conference, we have included into the program the keynote lectures invited from each participating Alps-Adria universites. The abstracts of the keynote lectures are also included. Following the previous two editions, young scientists have again been supported through the allocation of a junior award -young scientists under the age of 35, no tenure track- were invited to submit a full scientific paper to be considered for publication in *Review of Psychology*. Three submitted papers have been chosen for the award and are planned to be published in the next issue of the journal. So as to give an insight into the broad scope and professional quality of the conference, a short annotation for each of them will be given here.

The paper by Júlia Écsi shows that the exploration of intraindividual processes is a possible way to reveal complex life historical paths while the distinction of individual specificities may be based on additional information obtained from autobiographical episodes. The analysis of autobiographical episodes enables certain components, formal features, or variables to be investigated in order to draw conclusions on the internal working models, identity state, maturity, and integrity of the self. Based on this approach, this study was aimed at exploring self-images of children diagnosed with ADHD disorder and underpinning the hypothesis that these children may have difficulties with self-reflective functioning, the reflection on their behavioural problems when they are to judge their own conduct and social situation. In contrast, it is hypothesized that autobiographical episodes provided by the children are more suitable for identifying and demonstrating their conflicts and difficulties emerging in social interactions and having crucial importance in several life domains.

The paper by Orsolya Pachner deals with the psychological theories of play. Since most of these were generated in the 20th century, some of them simultaneously, they mostly dealt with different aspects of play. Author thinks these theories have common points, which can be called the essence of play. She highlights Piaget's epistemological approach of cognitive development and the connection to the other psychological theories of play. Then she presents the possible connection between play and cognition, and also between play and culture.

The study by Lilla Török, Zsolt Péter Szabó, and Judit Boda-Újlaky examined the role of potential precursors in the self-handicapping process. A total of 626 undergraduates from various Hungarian universities completed measures of dispositional self-handicapping, self-esteem, self-conscious emotions, trait anxiety, trait resilience, and social desirability. Self-handicapping is related positively to trait-anxiety, shame-proneness, externalization, and detachment, while negatively to self-esteem, resilience, and social desirability. These results provide additional evidence in support of previous studies about the deleterious effects and antecedents of self-handicapping. Since these results are correlational in nature, future investigations need to clarify the contribution (in a sense of causality) of each variable in the self-handicapping process.

It is also important to mention that the Scientific Committee has decided to give out a Süssenbacher Award so as to commemorate our distinguished colleague, one of the founders of the Alps-Adria Psychology Conferences who passed this year. The award goes to the best oral presentation in evolutionary psychology. The author(s) will be invited by *Review of Psychology* to submit an article based on the awarded oral presentation.

As the chair of the Organizing Committee, I am grateful to all members of the Scientific Committee and to members of the Organizing Committee, particularly to András Láng secretary, Orsolya Vincze, and Zsolt Péter Szabó. Several doctoral students helped our work. Orsolya Pachner, Júlia Écsi, and Péter Restás should be mentioned by name. Last but not least I should thank Vesna Buško for the editorial work of this special section.

Bernadette Péley
Head of the Organizing Committee of the 11th AAPC

11th Alps Adria Psychology Conference

18-20 September, 2014
Pécs
Hungary

Organized by

Institute of Psychology, University of Pécs

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Andás Láng (secretary),
Beatrix Lábadi, Zsolt Szabó, Orsolya Vincze, Júlia Écsi,
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ABSTRACTS FROM THE 11th ALPS ADRIA PSYCHOLOGY CONFERENCE

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INVITED SPEAKERS / KEYNOTE LECTURES

Violence in family in the life-time perspective: Methodological issues and treatment challenges

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Child family abuse is a serious global problem that cuts across economic, racial, and cultural lines. In addition to harming the wellbeing of a child, maltreatment and extreme stress during childhood can impair early brain development and metabolic and immune system functions, leading to chronic health problems. As a consequence, abused children are at increased risk for a wide range of physical health conditions including obesity, heart disease, and cancer, as well as mental health conditions such as depression, suicide, drug and alcohol abuse, high-risk behaviours, and violence. Part of the explanation is that child abuse can have not only physical and emotional long-lasting consequences, but it can also leave epigenetic marks on a child's genes. This can alter fundamental biological processes and adversely affect health outcomes throughout life. Of special importance is the construct of multiple victimization in childhood and its effects on long-term development, including biological changes in the brain. The core of the presentation will be based on the latest research on prevalence and long-term effects of violence against children within the adverse childhood experiences (ACE) model and cutting-edge knowledge in the field of epigenetics. The importance of epigenetic studies that serve as a bridge between biological and social processes, and give new meaning and research perspective linking poverty and abuse will be reviewed. Findings from research studies specifically relevant for the Alps-Adria Region will be presented, such as (a) multi-centre Balkan epidemiological study of child abuse and neglect, (b) study of long-term effects of institutional abuse of children in the Austrian Catholic Church, and (c) studies from Germany and the United States that focused on the role of timing of trauma, specifically of early childhood abuse and the underlying biology of PTSD at the genome-wide level. The findings will serve to highlight the social responsibility of psychologists to use evidence-base to improve prevention, early detection, and treatment of children who are exposed to violence. Possible ways forward for developing new treatments of consequences of exposure to violence in childhood in life-long perspective will be discussed. The research and intervention possibilities will be framed in the context of commitment to a number of delicate ethical dilemmas.

Key words: adverse childhood experiences, long-term effects of child abuse, new treatments of consequences of exposure to violence in childhood

Current developments in item response theory (IRT) modeling

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Today, the Rasch model looks back onto a more than 50 years of tradition. It has developed into an important tool of psychometric analysis and has gained fundamental meaning for educational assessment. The keynote will start with an outline of its basic properties and further developments. Special attention is paid to one of its greatest benefits, i.e., providing for a model test. It can be traced back to 1973, when Erling B. Andersen introduced the conditional likelihood ratio test (cLRT). Note that under the null hypothesis this test is asymptotically equivalent to the Wald test and the score test.

As with any significance test, we have to consider the question of power: Too large a sample will cause irrelevant deviations to reject the model, while small samples will not allow for detecting model violations considered relevant from a substantial point of view. This problem could not be tackled until 2010, when Clemens Draxler presented a solution for the Wald test. Four years later, Draxler and Alexandrowicz generalized this solution to the cLRT and the score test as well. The keynote will demonstrate a brand new freely available software in R allowing for power and sample size determination for Rasch model tests in a straightforward manner.

Key words: item response theory, Rasch model, model test, sample size determination, power

Machiavellians, the clever decision-makers

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In spite of having deficits in various areas of social cognition, especially in mindreading, Machiavellian individuals are typically very successful in different tasks, including solving social dilemmas. The abilities that Machiavellians use for deceiving others do not necessarily involve higher computational operations. In the light of our evidence, three sets of cognitive processes and their neural correlates appear to be characteristics to the Machiavellian way of thinking: (a) control of emotions, (b) sensitivity to reward and punishment, and (c) behavioral heuristics. In the first step of our experiments we examined social dilemma situations represented by experimental games such as public goods game. We concluded that individuals with high scores on Mach scale are more likely to be sensitive to situational factors (e.g., the number of altruists in the group) than low scorers whose decisions are rather influenced by personality factors.

They tend to track the partners' decisions and take the behavior of their playmates into account to a greater degree, which may lead to their success in the exploitation of others. Machiavellian people may have certain cognitive and social skills that enable them to properly adapt to the challenges of environmental circumstances. In the second set of our experiments, we assumed that a profound examination of neural structures associated with decision-making processes may shed light on the Machiavellians' abilities in exploiting other people. More specifically, we predicted that high-Mach people would show elevated activity in the brain areas involved in reward-seeking, anticipation of risky situations, and inference making. To test this hypothesis, we used an fMRI technique to examine individuals as they played the trust game. In accordance with our predictions, we found consistent activation in high-Machs' thalamus and anterior cingulate cortex, and inferior and middle frontal gyrus. We suggest that Machiavellians conduct specific neural operations in social dilemma situations that make them successful in manipulating and deceiving others. Machiavellians may have cognitive heuristics that enable them to make predictions about the future reward in a basically risky and unpredictable situation.

Key words: Machiavellianism, experimental games, brain imaging, cognitive heuristics

The psychology of the colour

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A complete course on the psychology of colour would not be enough to deal with all the aspects which characterize the world of colour. On the one side, colour is ubiquitous and all visual perceptions involve colours; on the other side, psychology is a broad scientific discipline, subdivided into a number of branches. Therefore, I will debate in this presentation on topics that mostly pertain to my scientific research, almost entirely devoted to the study of colour perception.

Psychology of colour includes sensation, perception, emotion, and cognition in their various subdivisions, although the distinction between sensation and perception belongs to a specific theory, nowadays mostly outdated. The very first meaning of colour is the perceived colour, from which all other distinctions derive, for instance psychophysical colour, physical colour (in the sense of physical stimulus), physiological colour, political colour, and so on. Critical topics are the relationships between stimulus and colour (with the frequently recurring stimulus error), and between perceived colour and physical world as well. Linked with this subject is also the nature of colour and its biological function, interpreted in the light of the interface theory of perception by Hoffman (colours are pseudo colours!). A related theory considers the light/surface-colour distinction a useful, but not necessarily veridical, operation of our mind often, but not always, equivalent to the physical distinction. A phenomenological and therefore subjective concept of colour is here defended, with a stress on the interaction between physical stimulus meant as source of information, and the characteristics of the perceiving subject. Then the inter-subjective communication of colour perceptions makes them objectified, and the role of colour language becomes essential.

The relevance of colour systems is highlighted by analogy with the Mendeleeff table of elements, from which a series of important consequences can be derived. The traditional Natural Colour System (NCS ©) is revised and a new version proposed which is intended to offer a more detailed description of the fundamental characteristics of colours, i.e., their similarity to the six elementary (unique) colours. The structure of the natural colour system advanced by Hering is then used to describe a relatively recent theory of colour combinations, inside a colour harmony reference frame, which results in an improved step as respect to what can be derived from the structure of the Munsell colour system (W. Spillmann). Moreover the NCS is also used as a starting point for modelling a phenomenological theory of colour transparency, in parallel with the well-known Metelli's psychophysical model of perceptual transparency (in the version extended to colours created by da Pos). A third application of the NCS in its new version is described with the purpose of establishing a new procedure in determining the colour rendition properties of light sources. The fundamental characteristics of colour adaptation are accounted to devise a novel method to specify the subjective measures of colour differences under different sources. These differences, indirectly obtained from evaluations of colour samples in agreement with the architecture of the new system, can be used to compute a colour rendering index to be correlated with what is achievable by other psychophysical methods. Lastly the NCS can be used to defend a universal theory of colour language, by showing that the basic functions of categorical colour perception can still operate in a patient with some colour naming impairment.

Some studies on the colour aftereffects show that they are not complementary, as usually considered. In connection with these physiological aspects of colour aftereffects, the study of colour contrast and assimilation shows that the neon colour effect strictly depends on a specific combination of the two process, leading to unexpected and astonishing results. Moreover it is well known that contrast can determine some basic figure-ground organizational effects, like coloured surface stratification. In the case of transparent figures, variations of contrast produced by Craik-O'Brian-Cornsweet margins can modify the relative stratification of the opaque background and of the transparent object, so that also the opacity and transparency appearance are simultaneously inverted.

Some expressive characteristics of colours are shown

and discussed in the light of experiments performed by using a special semantic differential in a new multisensory version. This analysis introduces also a study of the warm and cold colours aimed at identifying which are the warm and the cold colours. Some research on colour and emotions are mentioned in which a new methodology is followed by directly producing the colours fitting facial expressions of emotions; and also in the reverse direction, which emotions can be better associated to specific colours. Results obtained with a very small use of verbal language seem quite consistent and in agreement with other similar research. Lastly, some colour illusions are presented and discussed with the primary goal of proposing a new interpretation of perceptual illusions, with the consequent suggestion of a new kind of classification.

Key words: psychology of colour, Natural Colour System, colour aftereffects, expressive characteristics of colours

Teachers' competencies through the prism of educational psychology research

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The topic of the presentation is related to teacher competencies as a major factor that impacts students' learning. Ultimately, all attempts to improve education converge in the teacher and the quality of his working with students. Teachers with their teaching methods, their communication, and classroom management can structure such a learning environment that will promote learning or hinder it. The purpose of the presentation is to analyse the research on educational productivity to select the most important teacher competencies that are related to students' achievement. A model of teacher competencies is developed that serves as a framework for understanding the synergetic effects of teacher competencies on achievement through promoting students' cognitive, affective, and social processes. Teacher competencies that impact each of the processes are described and their impact on students' achievement is explained.

Key words: teachers´ competencies, research, students´ achievement

ORAL PRESENTATIONS

Effects of a sensory-cognitive approach on Italian children's food attitudes

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Within the framework of the Italy-Slovenia cross-border project P.E.S.C.A. on healthy food consumption educa-tion, we studied the effects of a sensory-cognitive method on food attitudes of a sample of Italian schoolchildren ($N = 397$). A pretest-posttest design was adopted. The tests included the Food Attitude Statements inventory, as well as other sections investigating some aspects like food perception and knowledge. Pretest and posttest was administered respectively at the beginning and at the end of the school year 2013-2014. During that year, educators trained with a sensory-cognitive approach gave children a series of interactive lessons consisting both of games which highlight the importance of all five senses while eating, and of organoleptic tastings of some dishes. If this approach is really effective, results should show not only improvements in food knowledge, but also some changes in food perception and attitudes. In particular, concerning food perception, a reduction of food preconceptions is desirable; concerning food attitudes, instead, we hope for a reduction of pickiness and neophobia and for an increase of food interest. In the case that such results were obtained (also partially), the sensory-cognitive method proposed could be considered as an effective approach to promote a healthy and variegated attitude toward food in children.

Key words: food attitudes, food perception, sensory-cognitive approach, pickiness, neophobia, food interest

From 8 to eternity: Notes on the Kemalist subject

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In psychoanalytic theory perversion is characterized by the dominance of the mechanism of disavowal, presented therein as a specific kind of denial principally of what we could call the death of the Father, or of the maternal lack of a Phallus. And, although the mere fact that Kemalists in Turkey frequently choose to symbolically "drop" the eight at the end of Kemal's date of death (1938) on its side, in order to transform it into the letter for eternity, would not suffice to sustain a position that what we are confronted with constitutes, indeed, a disavowal, a series of considerations may arise, nonetheless, concerning the function of Kemal today, as Father-Turk, even beyond the limits of a personality cult, in the formation of subjectivity in Turkey.

Key words: Kemalism, paternal metaphor, name-of-the-father, disavowal, identification

What do we know about long-term effects of disasters on mental health?

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The systematic literature review and meta-analysis of long-term psychological effects of disasters was performed on primary studies of journal articles, chapters, dissertations, conference papers, and unpublished reports produced between 1980 and 2013. Literature search included databases PsycINFO, SocINDEX, Cinahl, Medline, Web of Science, Scopus, Academic Search Complete, and PILOTS with 1,036 documents identified. Disasters were defined as single, sudden, with clear beginning and ending, resulting in major disruption of community functions, natural or human-made, requiring mobilization of major efforts. Wars and armed conflicts except terrorism were excluded. Long-term was any period longer than 6 months. The eligible studies used either cross-sectional or prospective research designs. The number of studies enabled meta-analysis of four psychological outcomes in the affected groups: general mental health was poorer at 12 months and 6.6 years post-disaster, post-traumatic stress symptoms remained higher at 8.4 years, 3 years post-disaster odds for prevalence of PTSD diagnoses were 9:1, depression symptoms were moderately and significantly higher only beyond 18 months indicating a possible delayed depression response, 11 years post-disaster odds for depression diagnoses were 5:1. Individuals affected by disasters have worse long-term mental health outcomes compared to the non-affected or to the pre-disaster period. The major gap of lack of research at the community and societal level was identified.

Key words: psychological effects of disasters, mental health after major critical incidents

High-risk parenting attitudes of child abuse and neglect: Factors influencing high or low scores on SZNA Questionnaire (Questionnaire on Parenting Attitudes)

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The detection of the risk groups or families plays a crucial role in the prevention of child abuse and neglect. In our present research we examine some factors that may influence parental attitudes towards children, with the aid of the SZNA Questionnaire (Szülői Nevelési Attitűd Kérdőív – Questionnaire on Parenting Attitudes), which was developed to indicate high-risk parenting attitudes in the context of child abuse and neglect. In our sample there were 585 adult participants (137 male, 448 female, mean age 39.11 years), and we identified a few features of participants related to the level of the scores on the SZNA. According to our findings while age has no significant or barely significant effect on the scores, the gender of the respondents is significant. A difference was detectable between the scores of those with and without children. The marital status of the respondents as well as the gender of the child had a slight impact on the result as well. Despite the fact that a large proportion of the participants were experts dealing with children (such as teachers for instance, or experts from other professional background) the profession of the participants hardly ever influenced the outcome.

Key words: parenting attitudes, SZNA Questionnaire, child abuse and neglect

From false insight to false knowledge

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"In common experience nothing can be more obvious than insight" – remarks Köhler in 1947. In fact, insight is present in our everyday problem solving behavior as well as in the process of creative activities and in all kinds of interpretation processes that aim at understanding figurative meanings. Insight is an effective way of learning, too, since it results in a complete, applicable, transferable, and enduring knowledge. That is why insight should get much more attention from educators to exploit its boons in education.

From cognitive aspect, insight is the restructuring of the mental representations, restructuring of knowledge. However, does this restructured knowledge necessarily meet the criteria of truth? In my presentation I discuss the truth aspect of insights as propositions, and point out that we tend to gain as many false insights as true ones. I also identify the types of false insights from the simplest to the most complex forms. I conclude that educators should promote gaining true insights but further research is necessary to reveal how we can avoid false insights in education.

Key words: insight, knowledge, false insight, misconception, delusion

Teacher burnout and perceived satisfaction of the job related needs

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Traditionally in the research literature the syndrome of burnout is presented as a homogenous phenomenon with a set of predefined symptoms that manifests similar in all subjects. While much research was conducted on burnout as a three-dimensional construct (emotional exhaustion, depersonalization, and reduced personal accomplishment) proposed by Maslach, very few researchers considered adopting a differentiating approach in their studies. The present study aims to investigate teacher's burnout from the perspective of an existing burnout typology proposed by B. Faber. Faber in his studies describes three clinical profiles of

teacher burnout, i.e., frenetic, underchallenged, and worn-out. In our study we surveyed 155 high school teachers from the Republic of Moldova. The research purpose was to measure the level of burnout among Moldovan teachers and identify the share of each burnout type in the whole surveyed sample. A further goal was to examine how teachers of each type of burnout perceive their needs satisfaction in the organizational context. The results show that majority (52%) of Moldovan teachers belong to the frenetic type of burnout, around 30% display symptoms of the worn-out type and 18% have symptoms of the underchallenged type. As a unitary group, teachers with high level of burnout perceive their needs satisfaction in the organization negatively. When looking from the perspective of burnout typology, a low level of need satisfaction is identified among teachers of underchallenged and worn-out types, while teachers of frenetic type perceive their needs satisfaction positively.

Key words: teacher burnout, burnout typology, needs satisfaction in organization

Are Machiavellians more intelligent than others? Correlations between Machiavellianism and performance in WAIS-R

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The shortage of previously used intelligence tests and new findings on Machiavellians' strategic skills in long-term interactions raise a question regarding their intellectual abilities. To address our research question, we used a complex intelligence test suitable for measuring a wide set of cognitive abilities. One hundred fourteen subjects completed the Wechsler Adult Intelligence Scale and the Mach-IV test. Weak but significant relationships were found between Mach scores and IQ, Verbal IQ, and Performance IQ. The scores on the Working Memory Subscale were significantly associated with Mach scores, indicating a possibly superior reasoning skill, rapid problem solving, and flexible processing among Machiavellians. Furthermore, a positive correlation was found between Mach scores and scores on Perceptual Organization subscales that may imply advance skills in the processing of visual cues. In sum, we assume that Machiavellians are rational thinkers who apply logical rules to everyday situations and develop rewarding processes in a complex and unpredictable social situation.

Key words: WAIS, working memory, perceptual organization, manipulative strategy

Experiences of people with disabilities regarding their right to equal opportunities and non-discrimination

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Equal opportunities for people with disabilities (hereinafter PwD) are presented in Slovenian Act in Equal Opportunities for Persons with Disabilities (hereinafter SAEOPD). The main objective of the presented study was to examine experiences of PwD regarding all of the important areas of the SAEOPD. Our aim was to examine what did PwD asses as suitable solutions and in which areas they face limitations. Nine structured interviews with representatives of disability organizations and eight focus groups with four to ten members of the disability organizations were performed in 2011. The purpose of the focus groups was to obtain users' experiences of discrimination against PwD by area, as defined by SAEOPD, whereas the purpose of the interviews with the representatives of disability organizations was to gain a broader picture about the same matter. An inclusion criterion for disability organizations was the type of health problems and disabilities that their members have. Accordingly, interviews and focus groups were attended by presidents and members of the following Slovenian disability organizations: Association of the Blind and Partially Sighted of Slovenia, Association of the Deaf and Hard of Hearing Slovenia, ŠENT - Slovenian Association for Mental Health, Sožitje - The Slovenian Association for Persons with Intellectual Disabilities, Muscular Dystrophy Association of Slovenia, The Association of Paraplegics of Slovenia, Sonček - Cerebral Palsy Association of Slovenia, Multiple Sclerosis Association of Slovenia, and The Federation of Disabled Workers of Slovenia. The main topics of interviews were as follows: experiences with the assertion of the rights of PwD in proceedings before state authorities, state and self-government local community, providers of public authorities and public service; experiences with accessibility to public buildings and transport; experiences with accessibility to information available in media; experiences with symbols and messages which encourage discrimination against the PwD; experiences with opportunities regarding education; experiences with assertion of the rights to health services; experiences regarding freedom to choose a place of residence and the right to inclusive way of living; experiences concerning access to cultural goods; and experiences regarding provision of technical devices and technology. However, it must be pointed out that participants originated mainly from the capital and its surroundings, which means that the findings cannot be generalized to the entire country or to specific groups of PwD by type of disability.

Key words: people with disability, The Act in Equal Opportunities for Persons with Disabilities, equal opportunities, non-discrimination, qualitative study

Family history knowledge and problem behavior in adolescence – Preliminary findings with the Hungarian version of Do You Know scale

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Family stories are theorized to be a crucial part of adolescents' emerging identity and psychological well-being. Adolescents who report knowing more stories about their familial past show higher levels of emotional well-being, and also higher levels of identity achievement, even when controlling for general level of family functioning. The Do You Know... scale is a 20-item scale measuring basic family history knowledge. In our study we introduce the Hungarian version of the Do You Know... scale and the first results of the Hungarian adaptation. Two hundred and forty-one Hungarian secondary school students were asked to complete the Do You Know... scale as well as some other scales measuring anxiety, self-esteem, attachment, and problem behavior. Our results are congruent with the former research findings. Children reporting more family history knowledge scored significantly lower on anxiety and problem behavior, while showing higher levels self-esteem even when controlling for attachment to their parents. We assume that the Do You Know... scale is a promising and useful indicator of adolescents' psychological well-being and potential positive outcome in clinical settings.

Key words: family history knowledge, identity, problem behavior, psychological well-being

Spatial representation for note height across different musician populations

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The SNARC effect (i.e., Spatial Numerical Association of Response Codes) suggests the existence of an association between number magnitude and response position, with faster left-hand responses to small numbers and faster right-hand responses to large numbers. In the present study we investigated whether visually presented musical notes are associated with the left/right response side depending on their position on the staff and whether this association is influenced by the specific musical instrument played. Separate groups of amateur and expert musicians, and expert piano and flute players were tested with order-irrelevant tasks. Results revealed that all the groups of musicians with formal musical education showed a left-hand advantage in processing relatively low notes and a right-hand advantage in processing relatively high notes, while amateur musicians showed no evidence of a spatial association. Importantly, data demonstrates that both piano players and flute players represent notes with the same spatial direction (i.e., low notes on the left and high notes on the right). Note that this mental representation is not influenced by the specific musical instrument played, as piano has high notes on the right side of the keyboard while flute has high notes on the left, and vice versa. This evidence proves that spatial representation for musical notes is universal among musicians.

Key words: SNARC, SMARC, music cognition, note height, spatial response correspondence

The influence of social status variables on different types of school aggression

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A meta-analysis emphasizes (Card & Little, 2006) that both reactive and proactive behavior relates to poor sociometric status, and that reactive aggression shows stronger correlations with poor status than proactive aggression. Reactive aggression is usually less tolerated than proactive aggression and has strong correlations with low social preference both in primary and high school classes (Vitaro et al., 2006). The study targets the relations between different types of aggressive behavior, like reactive and proactive aggression, and the social status of the student in the classroom. We would also like to evaluate the relationship between spontaneous cognitions and the social status and behavior of the aggressive child. Our participants were fourth and fifth grade Hungarian and Romanian school students from Transylvania. Preliminary results indicate that compared to proactive children a large percentage of the reactive children have aggressogenic attributions toward a disliked peer.

Key words: social status, reactive aggression, proactive aggression, aggressogenic cognitions

Impact assessment of child therapies with narrative psychological analysis

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Péley (2008) provides an overview of impact assessment of therapies. There are methodological difficulties of collecting data which is suitable for quantitative analysis, but still based on patient's self-reporting. Determination of improvement in condition is also problematic, since sample

is not clean, diagnosis is not always available, and conclusion regarding improvement of patient's condition is not clear. Further difficulty with examination of child therapies is the fact that such therapy is not voluntary, often the child does not have the pressure of suffering, and the effectiveness (satisfaction) is basically decided on by the parent. During the study we generated data which was based on self-reporting, but questions asked and projective methods were guided by Péley (2002) and therefore suitable for statistical processing. Usage of NarrCat toolkit (László, 2013) allowed us to measure psychological changes on the level of linguistic structure. Our general goal was to recognize psychological changes appearing during therapy, as well as to analyse changes in parent's self-narrative in the light of child's therapy. In our study we analysed text resulting from the participating children's CAT, World-game, drawing tests, and direct questions in the beginning, middle, and the end of therapy. Parents also took semi-structured interviews during these three occasions. The changes were measured by changes on the CBCL questionnaire. Results will be interpreted in the light of changes during therapy occurring on the level of linguistic structure level in self-reports. If we see such changes, we will assume that this represents change in subject's psychological condition as well. The question is whether the change, improvement of child condition due to the therapy effect, is in harmony with measurable changes in questionnaire and parent's reports.

Key words: child therapy, impact assessment, projective methods, narrative psychology

Lectures – a dying breed? Factors of a popular lecture

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There is a debate in higher education whether the current form of lectures are necessary. With arrival of the Z-generation, we witness a changing landscape in educational culture, which is especially true for lectures. In our previous studies, we explored the factors that influence a practice's judgment. The goal of our current study was to analyse what makes a lecture to be attended and to define the factors which determine the judgment of lectures. Twelve thousand nine hundred and ninety-seven anonymous questionnaires have been processed. Explorative and confirmative factor analysis has been used to validate the inventory. Forward stepwise automatic linear modelling was used to explore the underlying connections between the items. Satisfying 75-80% accurate linear models were made, which have determined that the most influential factors in a lectures' judgment are its role in exam preparation, the dynamism of presentation, and the well-organized curriculum. The most defying factor in the attendance of a lecture is the semester when it is held with a stunning 98%. In the question "If you would attend it again", the most important factor was the role in exam preparation. According to our results, the key to a popular lecture is to give the students a more "useable" lecture in the most understandable content. We have also found that a good lecture is no guarantee for a popular lecture.

Key words: lectures, feedback, popularity, motivation

The bio-psychosocial approach of the male body image in the army service

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The male body image is a multidimensional construct that is more than how a man is defined by his muscles. Only the entirety of the body-satisfaction, consisting of the satisfaction with the muscles, the body fat, and height, can grasp the psychological well-being of men. One objective of this study is to adapt an instrument intended to assess male body image (Male Body Attitude Scale – MBAS) to German language, and further, to present a new bio-psychosocial approach to understanding of the male body image. From the physiological point of view, the stress management of the body is an essential mechanism in interaction with the internalized body image, the psychological factor of resilience as protective factors, and the external social influences, like belonging to a military. The interrelations of this bio-psychosocial model are represented by the interaction between body image and physiological stress management, the latter being detected through the catecholamine levels in the blood. In addition to these factors, we consider the impacts of socio-cultural variables, such as the positive and negative effects of the environment, and the protective factors, such as resilience. The study was carried out with the help of Theresianische Militärakademie (MilAk) in Wiener-Neustadt (Austria). We gathered and examined the data as a part of the stress assessment supervised by Prof. Porta. Current results show that there is a significant correlation between lower stress-tolerance and a negative body image. Furthermore these soldiers are more sensitive to the negative social influences. The adapted MBAS provides an outlook towards the studies of modern cognitive psychology, the effect on the individual and the study draws attention to the importance of the male body image disorders. Furthermore this study shows a new perspective of the bio-psychosocial model of the male body-image, emphasizing the relationships between body image and stress reactions of the body to physiological stressors depending on socio-psychological variables.

Key words: MBAS, body image, bio-psychosocial, military, body attitude, questionnaire, social, aggression, resilience, military belonging, SATAQ, stress

Spatial orientation: Effects of GPS usage on cognitive map forming

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Navigation in urban environments requires complex cognitive abilities. We need to focus on both spatial overview and we have to process information related to details of surroundings and places. Our research measures the effects of navigating with either a GPS or a map in an unknown neighborhood on the participant's cognitive map elaboration. We examined the sense of direction (measured by Sense of Direction Questionnaire short form of Takeuchi & Kato, 2002, and Santa Barbara Sense of Direction Scale by Hegarty et al., 2002), way finding strategies (Lawton, 1994) and perspective taking (Hegarty, Kozhevnikov, & Waller, 2004) as independent variables, in relation with formation of cognitive maps. We examined participant's cognitive maps by a map sketching task, measuring the number of correct, incorrect, missing, and total elements. We also measured time, traveling distance, number of stops, and task difficulty, as factors related to navigational behavior. Data were collected from 34 students (19 female and 15 male, mean age 24.32), who completed self-report measures of spatial orientation abilities. Results support the use of multiple predictors in understanding the ability of spatial orientation. We found that 61.8% of students have high sense of direction, showing significant gender differences: only 52.6% of female participants show high sense of direction, compared to male participants (73.3%). Differences in retrieval accuracy of spatial information indicates that using a map enables subjects to demonstrate a significantly better spatial understanding and to elaborate cognitive maps and place elements in sketch map task with greater accuracy in comparison with using a GPS. Based on these results we suggest further research on examining the implications of GPS or map usage on spatial orientation modifiability.

Key words: sense of direction, navigation, GPS, map, spatial orientation, cognitive map, modifiability

Identification of tests based on the control mastery theory – A single case study

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The interest for and the necessity of psychotherapy research constantly grow, especially regarding the outcomes of psychotherapy and the role of process variables. This single case study is based on the assumption of the control mastery theory by J. Weiss (1986), which states that patients try to overcome their pathogenic beliefs by testing those within the therapist-patient relationship. The control mastery theory is based on the largely unconscious patient's urge to disconfirm his pathogenic beliefs by testing the reaction of his therapist. In a strong therapeutic relationship the patient regulates his own treatment by testing different behaviours. The therapist's reaction to the patient's tests helps him overcome and contradict his pathogenic beliefs, by demonstrating an alternative reaction pattern to the expected.

The main purpose of this single case study is to identify tests of a patient in short-term psychodynamic psychotherapy. The transcripts with a total of 35 sessions regarding a 33-year-old patient with somatoform disorder and depression were analyzed. Therefore the first four sessions of the therapy were used to formulate an analysis plan according to the central goals, obstructions, anticipated tests, and the insights to perform a plan analysis based on the control mastery theory. Based on this plan formulation three categories of tests were identified: "patient's need to emphasize his own needs", "patient's need to control others" and "patient's need to separate from others". Those were expressed through variations of transference tests (the patient re-enacts a traumatic experience playing the role of the victim and observing the therapists reaction) and tests by turning passive into active (the patient takes over the active role of the traumatizer re-enacting scenarios and placing his therapist in his stead into the role of the potential victim). The outcome of the plan analysis was afterwards compared test by test with 100 items of the Q-Sort by E. E. Jones (1990) to analyse, underline, and put the obtained results in a wider context.

Key words: psychotherapy, outcome study, test, therapist-patient relationship, qualitative analysis, control mastery theory, Q-Sort, single case study, case formulation analysis, comparison, plan analysis

The history of psychoanalysis from a marginal perspective: Exclusion from the psychoanalytic movement in Wilhelm Stekel's "On the History of the Analytical Movement"

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Splits, breaks, and desertations build knowingly a crucial part of the psychoanalytic movement. Wilhelm Stekel, who left the psychoanalytic movement in 1912, wrote 1926 - a few months after the publication of Freud's "An Autobiographical Study" (1925) - his own account of the analytical movement ("On the History of the Analytical Movement"). The main questions I am interested in are: What are the similarities and the differences between the two texts and

between the two perspectives (the dominant and the marginal)? How are exclusions and their mechanisms described in Freud's and Stekel's account? Finally, how did Freud and Stekel relate to figures that were excluded from the movement, such as the psychoanalyst and anarchist Otto Gross?

Key words: history of psychoanalysis, splinter movements, exclusion, Sigmund Freud, Wilhelm Stekel, Otto Gross

Optimism and hope among cancer patients and family members

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The main aim of this paper is to determinate whether there is a difference in optimism and hope among cancer patients diagnosed for the first time and those whose disease is in recidivism. The survey was conducted in September and October 2013. The survey was conducted on a convenience sample of 82 subjects (42 subjects with diagnosed cancer and 40 members of their families). The participants were given two tests: a test for measuring optimism and test for measuring hope. Based on the processing of obtained data from the tests, we can give following conclusions: cancer patients with recidivism have higher hope and optimism than patients diagnosed for the first time; healthy members of the family suffering from cancer which returned again have lower hope and optimism than the healthy family members of patients in which disease is diagnosed for the first time.

Key words: optimism, hope, cancer, patients

Attachment, children's preference for parent-resembling faces and a possible link to sexual imprinting

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One possible way of how children use parental models in their social relations would be for children to show more willingness to make friends with peers resembling their parents. To test this possibility, composite faces were created from 89 children in three groups. The children' age in the first group was 3 to 6 years (preschool children), in second group there were 6- to 10-year-old children (primary school children), and in the third group the children were 10-14 years old (junior children). The children's photos were transformed to resemble facial images of their parents. The children were asked to show which one of the two same-sex transforms they find more appealing: the familial or the control face. Three to six-year-old children who lived in emotional proximity to their parents, and, particularly, to their mothers, were attracted more to father-resembling faces than to unfamiliar ones. Furthermore, 10- to 14-year-old boys who showed emotional proximity to their mothers were attracted more to mother-resembling faces than to unfamiliar ones. These results show that childhood experiences influence face preferences. This bias may affect social decisions later in adulthood, for example, in mate choice, like why we prefer parent-resembling mates.

Key words: children's face preferences, family environment, mate choice in adulthood, sexual imprinting

Impact of a child's death on the family system and the celebration of life - A bereavement support program and outcome effectiveness study

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The presentation is about a new type of bereavement support program in Hungary dedicated to serve families who have suffered a major trauma by losing their child in an oncology illness. The recreational camping program is offered free of charge to the families, who benefit from its functional intervention, recreational participation, and grief counselling, which all facilitates their physical and psychosocial rehabilitation. The families are offered to visit the camp three times within a year. We offer a supportive environment within which they have the possibility to spend quality time together, find support, share their experience of loss, and find ways to look to the journey ahead. This project is also supported by an outcome effectiveness study, which is not only a tool of evaluation but also gives us an insight to the impact of death of a child both on the family system and family members regarding their role, age, and gender. Our longitudinal research contains more types of instruments (qualitative and quantitative questionnaires, projective techniques) measuring the grieving process, resilience, and regulation of emotions among other psychological dimensions of family members.

Key words: bereavement, grief, family system, outcome effectiveness

How the analogical reasoning and transfer work? Identifying cognitive and metacognitive mechanisms using the Analogon program

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In our study we investigate the effectiveness of a new cognitive modifiability program (Analogon), developed by us, and based on analogical reasoning and transfer. Studying analogical reasoning in human cognition is important for several reasons (Kolodner, 2012). The majority of well-known intelligence tests, if not totally based on analogical problems, include one or more analogical subtests. In sciences many novel discoveries are based on analogy. The classic formula for four term analogies is: A:B::C:X. The challenge is to choose the X term from given alternatives based on the discovered relation between A and B. The first step is to code the terms A and B, then to discover the relation between these terms, and map the solution between C and X. To identify the cognitive and metacognitive mechanisms of analogical reasoning we developed a computer assisted program (Analogon). The Analogon is a game-like instrument and includes 24 classical analogy items. The analogical tasks are organized on four levels (depending on the number of elements included in terms), two complexity levels (easy, difficult), different complexity degrees on each level, and three phases (demonstration, learning, and transfer phase). At each task three terms of analogy are presented by the program and the fourth term is constructed by the child. In the construction phase the Analogon program records reaction time, answer elaboration time, good and wrong answers, and strategies. Data were collected from 130 children with ages between 8 and 12 years. We found significant differences in strategy use and answer elaboration time. Our results suggest that coding and mapping include different cognitive and metacognitive mechanisms depending on complexity level. In the case of analogies with small number of elements and attributes, children focus on surface characteristics. When they meet a complex analogical problem they focus on the relations between elements. We suggest using the Analogon program for research, diagnosis of cognitive functioning, modifiability assessment, and intervention.

Key words: analogical reasoning, transfer, Analogon program, cognitive modifiability, metacognitive mechanisms

Theory of mind, empathy, and bilingualism: The effect of metalinguistics and early bilingualism

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I have examined the positive effects of bilingualism on theory of mind and empathy. I believe that because of the metalinguistic awareness (understanding that all things can be described in many ways, that everyone can have a different representation about something) and the early bilingual environment (the child notices that someone uses a different language code, so he/she has a different mental state), bilinguals will have better mindreading capabilities and empathic skills, and that not only their cognitive empathy will be advanced (visual perspective taking), but also their affective empathy as well. Bilingualism has been proven to have a number of cognitive benefits and those benefits influence social intelligence in a positive manner. Two hundred and forty individuals participated in the research divided into two groups, Hungarian-Serbian bilinguals and Hungarian monolinguals. They filled out two questionnaires, one for the language profiles and one for the empathic skills; also they participated in the adult theory of mind test.

Most of the hypotheses have been proven to be true. The results show that bilinguals really have better empathic skills. Some stories in the theory of mind test showed the difference in favor of the bilinguals, but some stories didn't. According to these results we can't assume a strong correlation between bilingualism and mindreading, but it is definitely a trend, and we need further research for the better overview. However, it should be remembered that this study is the first in this subject and we can't draw far-reaching conclusions from it, but it is important for further research.

Key words: bilingualism, theory of mind, empathy, early bilingualism, metalingustic awareness, executive functions

Psychopathological syndrome specific susceptibility for rubber hand illusion

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Detection of body image and body schema dissociation by rubber hand illusion (RHI) is a reliable paradigm to assess body integrity in both clinical and control populations. The main components of RHI, including proprioceptive drift, ownership, and disownership, associate with schizophrenia and interpersonal sensitivity. Nevertheless, the proposed models to date have failed to present a coherent picture explaining all three components in light of contradicting evidence. The aim of this study is to explore the individual's capacity in self-integration, the susceptibility to RHI, and the role of temperament, character, and psychopathological factors in the emergence of RHI. The classical RHI factors were assessed on 48 university stu-

dents. The personality predisposition and psychiatric vulnerability were measured by Temperament and Character Inventory (TCI-R) and the Symptom Checklist-90-R (SCL-90-R) questionnaires. Our study pointed to the fact that the magnitude of behaviorally defined proprioceptive drift was associated with temperament factors. Contrary, no link between the intensity of proprioceptive drift and psychopathologic symptoms vulnerability factors was found. Examining the associations between embodiment scores, the affected personality, and psychopathology symptoms specificities, elevated ownership embodiment has been found with elevated interpersonal sensitivity and vulnerability to schizotypy, and elevated disownership have been found in the case of elevated schizotypy containing depersonalization feeling while RHI has been induced. The RHI may be considered as a conflicting situation, in which the way to cope with conflicts provides an opportunity to test body integration and embodiment process in healthy participants and patients without disadvantageous outcome. The presented results support and replenish the two opposite processing models of RHI with a third temperament based procedural mechanism.

Key words: interpersonal sensitivity, rubber hand illusion, peripersonal space, self - integration, temperament

Narratives of a national trauma in the Romanian new wave

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Ceaușescu's Romania was one of the most interesting communist regimes in several respects. Relief in local and global politics of the eighties left Romania untouched, the country remained severely dogmatic in fighting the intelligentsia and other enemies of the establishment. Living conditions worsened throughout the decade, leading to the December revolution in 1989. This official narrative has been questioned by many. Real drivers of the events are still unclear, motives of key actors are occasionally unethical, and holding the actual or imagined perpetrators responsible has still not begun. A number of highly regarded films were produced since the turning point, set in the "Golden Age" of Romania, in the darkest period of the Ceaușescu regime, while other works analyse the post-traumatic effects by presenting contemporary stories. The paper aims to summarize the filmed experiments made to process the trauma of the epoch and the bloody events which put an end to the era 23 years ago, by analyzing eight feature films (out of which one is an anthology comprising of five short films from five directors). Key factors in the analysis are the filmed narratives of the trauma and the lack of convicting the responsible, aiming the systematic content analysis of the relevant films using the paradigm of narrative social psychology, focusing on the markers of revenge, forgiving, solidarity, glorification, unity, and inter-group emotions. Results showed that the typical patterns of immature social identity are clearly spottable in the films of the Romanian New Wave.

Key words: narrative social psychology, Romanian film, fall of communism, trauma

Understanding privileged access and perspective taking

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We conducted three experiments targeting the development of understanding privileged access with subjects between 5 and 9 years of age. Privileged access means that we have direct first-person access to our own mental states such as thoughts, beliefs, intentions, and so on. In the first experiment ($N = 67$) we found a developmental trend and a question-type-specific effect in attributing privileged access to self and other. Reversing the order of first-person and third-person-related questions in the second experiment ($N = 36$) eliminated all the effects found in the first one. In the third experiment ($N = 75$) we collected data concerning the specific relationship between intuitive theory of mind and the attribution of privileged access. We suggest that our findings indicate that children's understanding of privileged access proceeds from their first-person perspective to a generalisation to other people.

Key words: privileged access, theory of mind, perspective taking, understanding narratives, cognitive development

Generalization of stereotypical social judgments related to facial appearance

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As a result of the generalization processes of the mind, daily experiences with our acquaintances have a major influence on our attitude towards other, unknown people. Prejudices towards them often arise during the very first encounter, reflecting our past experiences with others. Intense emotions experienced during past events and social interactions might be particularly important in this process. However, it is still debated whether the generalization happens and the face preferences emerge automatically, or due to higher level conscious processes; is there a difference in the formation of stereotypical social judgments when the source of information is provided by perithreshold stimuli or explicit behavior descriptions?

Ten facial photographs were shown to two groups. For the first group, the facial stimuli were preceded by images with different valence for perithreshold duration. Five of the images were primed with images with negative, five with positive valence. Members of the second group were asked to learn a negative or a positive description associated with the same faces. The task was the same for both groups: participants were asked to choose from two composite faces the one which they found more likeable. These composites were made of the five individual faces associated with the negative, and the positive images or behaviors, respectively.

The participants preferred the positive composite to the negative one above chance. These results show that following a short but emotionally intense exposure, faces resembling previously seen ones evoke similar reactions. This effect is mediated only by the emotions associated with the original faces; the fact that the type of the task (i.e., priming or learning) did not influence the subjects' choice significantly shows that the social content of the associated information (i.e., description of a behavior) does not have any enhancing effect on the performance. Therefore, it seems possible that stereotype formation and social decision-making based on facial appearance, especially when the amount of available information is limited, is based on low-level cognitive processes, such as associative learning, categorization, and generalization.

Key words: associative learning, priming, face recognition, emotions, social information

Confusion of tongues – A reinterpretation of Ferenczi's paper in the film art

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British film directress Em Cooper was inspired by Sándor Ferenczi's confusion of tongues theory. The film (2010) of the same title combines animation and live action seeking to capture the chaotic inner experiences, complex psychic, perceptual, and memory distortions of the person suffering from trauma. The short film – using only a scarce number of words – depicts with incredible power a trauma that can hardly be recounted verbally. Rapid changing of images, colours, and shapes, the transitions of contoured and obscure, shifts between "real" and "imaginary" figures – this visual montage synthesizes multiple ideas in a powerful visual language. The blending of animation and live action creates a chaotic, surreal world that is both frightening and moving. The film, as a work coming into existence in transitional space, zooms in and out Em Cooper's movie helps encounter what is incomprehensible, inexplicable, and impossible to apprehend. Likewise in some sentences of the Ferenczi essay, heavy layers of meanings are piled upon

each other through the images of the movie. In our lecture we observe the role of live action and animation in capturing the dynamics of tongue-confusion and how it affects the receivers/audience. How is confusion of tongues portrayed today in an animation employing oil-painting technology? What extra meanings are given by images, colours, and sounds to the issues of seduction and trauma, construction and reconstruction, narrative and objective truth? The real live hand, flashing onto the screen, sketching up the animation parts of the film may also actuate thoughts concerning the processing of the trauma.

Key words: confusion of tongues, movie analysis

Aggressive behaviour in the school context: Could social and emotional learning programs do the trick

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Studies have shown that programmes for aggression reduction, both in Slovenia (Mugnaioni Lešnik, Koren, Logaj, & Brejc, 2008) and in other countries (Huesmann, 1994), are for the most part unsuccessful. Anxiety reduction programmes on the other hand, in particular the cognitive behavioural approaches, are more efficient (Barrett, Lock, & Farrel, 2005). Studies of non-clinical samples (e.g., Ialongo et al., 1996; Barnow, Lucht, & Freyberger, 2001, Goldstein, Grant, Ruan, Smith, & Saha, 2006, both in Tanaka et al., 2010) as well as clinical samples (Furr, Tiwary, Suveg, & Kendall, 2009; Levy, Hunt, & Heriot; Mullin & Hinshaw, 2007; Coccaro, Kavoussi, Berman, & Lish, 1998, Eaves, Darch, & Williams, 2004, both in Philips & Giancola, 2008) have revealed that with increased aggression anxiety is also frequently increased. Therefore the idea is to target aggression by targeting anxiety using efficient anxiety prevention and reduction programs. Speaking in favour of anxiety and aggression being addressed together is also the fact that aggression is more stable if anxiety is present at the same time (Ialongo et al., 1996). Both concepts have a negative effect on an individual and also affect the school work (Flannery, Vazsonyi, & Waldman, 2007; Stallard, 2009). Selecting the school environment for introducing the model of anxiety and aggression reduction is of key importance, as a larger number of pupils can be included in aggression reduction programmes at the level of schools. One of the most efficient programs for anxiety reduction has been the one based on social and emotional learning. One of the most successful programs of this kind is FRIENDS (Barrett, Dadds, & Rapee, 1996). The FRIENDS programme is an internationally recognized programme for reducing anxiety. Its efficiency has been confirmed in numerous studies and is also the only programme of its kind that is recommended by the World Health Organization (WHO, 2004). Several studies have proven it to be efficient at reducing anxiety and related

disorders, including aggression, and the programme is also suitable for use in a school environment. In the paper the program, its background, use, and scientific support are going to be presented together with the research design involving the test of its effectiveness in Slovenia. The implications for school practice will be discussed.

Key words: school, social emotional learning, aggression

Exploring the narrative markers of socio-affective and socio-cognitive sharings

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It has been argued that emotion regulation is a social process (Rimé, 2009). People share their emotion eliciting experiences with other people, and by sharing they are able to cope with the distress created by the mentioned event. According to Rimé (Nils & Rimé, 2012) there are at least two types of sharing: socio-affective and socio-cognitive, each having different functions and consequences for the person. The first serves as a mean to quickly get rid of the tension created by the event, and to share its affective consequences, while the latter allows for putting the event into perspective, elaborating it, making sense of its significance. While there is a substantial body of evidence on how, when, why, and who shares what, the way how these shares actually take place are rarely observed. We aim at exploring the narrative markers of the two sharing types. We applied the CERQ questionnaire (Garnefskij & Kraaij, 2007) capable of assessing the cognitive emotion regulation style of a person along with various items concerning social and affective emotion regulation techniques to classify our participants ($N = 175$) according to their preferred emotion regulation styles. We also asked participants to recount a recent significant event, which had been analyzed by the NarrCat (László et al., 2013). Results show that the two emotion regulation styles differentiate the stories in terms of spatio-temporal perspective, activity, social reference, and evaluation. For example, those with a more affective focused emotion regulation produced narratives with more experiencing perspective forms and less evaluative words. We interpret our findings in the framework of narrative psychology.

Key words: emotion sharing, narrative analysis, emotion regulation

Machiavellianism and borderline personality organization

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Machiavellians are well known to view others in a goal-oriented manner and tend to behave manipulatively to exploit others. Several research linked Machiavellianism with personality dysfunction, and as a part of the dark triad, Machiavellianism is related to narcissism and psychopathy as well. Given the similar manipulative behavior in both Machiavellianism and borderline personality disorder (BPD), the hypothetical link between these two constructs has been tested in former studies. Results from these studies are ambiguous with regard to the question whether BPD patients report higher level of Machiavellianism than controls. One reason for this ambiguity could be the descriptive nature of BPD. In this study, the connection between the dynamic construct of borderline personality organization and Machiavellianism was tested. Young adults from a community sample ($N = 226$; 130 females; 32.30 ± 5.43 years of age) completed the Borderline Personality Inventory and the Mach-IV Scale. Results showed moderate correlation between characteristics of borderline personality organization and Machiavellianism. Fear of fusion and primitive defenses predicted level of Machiavellianism controlling for age, gender, and level of education. Results strengthen the non-volitional view of Machiavellianism.

Key words: Machiavellianism, borderline personality organization, fear of fusion, primitive defenses

The Nest – A story of a transgenerational trauma

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The short film of British film directress Em Cooper The Nest (2010) tells the parallel story of a domestic abuse. The very same morning is shown first from the mother's point of view, then from her daughter's angle. The dissociated images of the film blur the line between past and present, fantasy and reality, mother's and daughter's story. Is it the mother's or the daughter's trauma? Or the trauma suffered by the mother is mirrored in fantasy, and this unprocessed trauma presents itself in the dynamics of the father-daughter relationship, or even, in all three lives? After watching the film we will discuss how stories that are verbally "non-narratable" but live deep inside us can emerge, come back

to life, be animated through various media, e.g., the visual arts. The directress employs the ambiguity, "double senses" (M.L. Hernandez) immanent in animation to represent the interplay between fiction and reality. The intermediality of animation and live action helps getting to a closer understanding of domestic violence, the dynamics of abuse, and transgenerational trauma.

Key words: transgenerational trauma, objective and narrative truth

Corporate culture and national identity

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There are well established research approaches to define psychological characteristics of the national identity in the field of the scientific narrative psychology. The national narrative reflects the important variables of the psychological state of the national identity as well as the most important psychological mechanisms. The narrative content analysis that focuses on the structural analysis of oral and written narratives reflecting on the national group identity has revealed many relevant factors that form social behavior in cross-group situations and also in-group relations. Corporate culture also forms a social identity that has its psychological character, thus influencing the individuals - as they act as the members of the group - according to the psychological character of the corporate social identity. A new direction of researching corporate culture is a comparison of corporate narratives and national narratives, how national narratives influence the process as corporate narratives are formed, and to what extent it might be relevant to research the correlation between the psychological character of the corporate culture and the relevant national narrative.

Key words: narrative psychology, national identity, corporate culture

Gassendi, the Sun, and the apparent size

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In the history of science, one fascinating period was the first half of seventeenth century, in which there was a fantastic exchange of letters among the greatest scientist and philosophers of the period, with some great personalities, like Peyresq and Mersenne, which acted as the center of this exchange. Pierre Gassendi (1636-1642) was a deeply involved epistolographist, and his theory of perception of apparent size and of the sun illusion was a fruit of this very rich exchange of letters. It is well known that Pierre Gassendi advocated, to explain the illusion of the sun at the horizon, the

dilatation of the pupil, a theory that Leonardo da Vinci had supported a century before, but that received little credit – for instance, Diderot and D'Alembert were ironic about it on the Encyclopedie. Of course, this theory that emerged in four letters to Naudèe, Licetus, Boulliau, and Chapelain, was wrong, but not so patently, if even in 1975 Enright believed that it was seasonable to test it. Unfortunately, this bad aspect of Gassendi's theory has completely concealed the importance of his contribution to the problem of size-distance invariance. Indeed, in this respect his analysis is one of the better elaborated before Berkeley, and in many respects more subtle and sound than the ones elaborated by Descartes and Malebranche. This paper tries to re-evaluate this neglected aspect of his work.

Key words: history of psychology, perception, moon and sun illusion, size distance invariance

"Reasons to stay": Organizational/job commitment and involvement - A cross-cultural comparison of Hungarian and Romanian employees and teachers

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In this paper we present two studies. In Study 1 we examined the relationship between job commitment, work involvement, work values, and organizational commitment, comparing employees from Hungary and Romania. Data were collected from a heterogeneous sample of ($N = 156$) employees from both countries. Participants completed self-report measures: the Organizational Commitment Questionnaire (Blau, 1985) and Job Involvement Questionnaire (Kanungo, 1982). Demographic variables were also assessed: gender, position, education level, and job-educational level fit. We found significant differences between Hungarian and Romanian employee's job involvement, the Romanian employees having higher scores. Male participant's mean scores were higher on every assessed variable (but statistically not significant). The sociodemographic variables such as gender, position in the organization, education, and job-educational level fit did not significantly affect job commitment or job involvement in this sample. In Study 2 we examined the relationship between job and organizational commitment, satisfaction, and motivation on a more specific population, Transylvanian (Romanian and Hungarian nationality) and Hungarian teachers, using self-report measures. Romanian and Hungarian teacher's overall job and organizational commitment is influenced by different factors. The implications of these relationships in enhancing teacher's motivation, job satisfaction, and commitment are discussed.

Key words: job commitment, work involvement, work values, organizational commitment, job satisfaction, teachers, motivation

The politicization of homelessness in the Hungarian media

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Our study demonstrates the effect of politicization on the representation of homeless people in Hungarian on-line media between 2010 and 2013. According to the two-factor prejudice theories, egalitarian social norms require people to conceal their negative attitudes toward outgroups which are therefore mostly indirectly or implicitly expressed. However, politicization of out-groups may function as a justification of prejudice against disadvantaged groups, leading to the suppression of non-prejudicial social norms. In democratic societies, media can be understood both as the forum of free speech or, as Foucault suggests, power can create the main discourses about homelessness through the media. Since the previous election in 2010, the government implemented laws and regulations that potentially criminalize homeless people in Hungary. We collected 4,664 articles published by the most widely read on-line news portals and analyzed them using quantitative content-analysis, using Textplore to understand the patterns of representation in a period when these new laws were discussed and took effect. The frequency of articles mentioning homeless people, and changes in the thematic focus of the most common words appearing in the context of homelessness mark the effects of politicization on public discourse. The content analysis identified the most frequently occurring categories constructed about homeless people along three main representational patterns: (a) politicized-alienated, (b) depoliticizing-segregating, and (c) structural-humane attitude. The impact of these discursive patterns on prejudice formation is discussed.

Key words: homelessness, media representation, politicization, prejudice

Beard as an adaptive means of displaying phenotypic quality

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Mate choice decisions necessarily implicate the cognitive and emotional evaluation of potential mates, and the capacity to integrate these appraisals into the decision process. According to evolutionary psychology, human beings have been selected to be able to evaluate cues associated with the reproductive value of a potential mate. The human beard is sexually dimorphic, emerges at puberty, and is thus a secondary sexual characteristic. It does not appear to have any major benefit for survival because it is not only absent in women and children but does not occur at all or is greatly reduced in many cultures. Our research was designed to investigate evolutionary basis of women's preference for hairy male faces. We hypothesized that women prefer males' face with stubble compared to clean shaved male faces and faces with full beard. Moreover we supposed that women in fertile period of their cycle estimate healthiness of men's stubbed faces higher compared to women in infertile period of their cycle. To test these hypotheses, we made six different portraits of men (with Faces software) and three different facial hairstyles on each face (clean shaved, stubble, full beard). Eight hundred thirty-two women filled in our online survey. The results supported our hypotheses.

Key words: sexual attractiveness, facial hair, mate preference

The predictive validity of a bi-dimensional national identification scale

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Present study ($N = 207$) was aimed at proving the predictive validity of a bi-dimensional national identification questionnaire in Hungary (Szabó & László, in press) by investigating the correlations with other scales such as the Individual-Group Belief Inventory (Eidelson, 2002), RWA (Altemeyer, 1996), and SDO (Pratto et al., 2013). Also the relationship between identification and various demographic and political variables was examined. Results support the validity of the bi-dimensional model which - similarly to Roccas, Klar, and Liviatan (2006) - differentiates between two modes of identification: attachment and glorification. The former means an emotional bond to the nation and the latter is defined by the belief in in-group superiority. Our results show that attachment seems to represent a strong and positive national identity: people with high attachment scores are proud group members who feel like the members of the group should stick together and be united. In contrast, glorification seems to represent an insecure identity: people with high glorification scores perceive the in-group as vulnerable, and victim of injustice. They are in favour of strong autocratic leadership and refuse the idea of group equality. These results support the necessity of distinguishing between the two modes of identification; and thus we managed to prove the justifiability of the bi-dimensional approach in case of Hungarian national identity as well.

Key words: national identification, bi-dimensional model, attachment and glorification, in-group identity related variables

To bike or not to bike? Application of the theory of planned behavior in predicting bicycle commuting among students in Zagreb

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Reducing motorized transport has a number of positive effects on the environment, utilization of urban space, human health, and quality of life. Studies that provide better understanding of factors relevant to choice of transport modes can help in creating campaigns to encourage use of environmentally friendly modes of transport. The main goal of this study was to test the usefulness of the theory of planned behavior (TPB) components (subjective norm, attitude toward bicycle use, and perceived behavioral control) with the addition of personal norm in predicting the intention of commuting by bicycle to university among students in Zagreb, Croatia. Additionally, we researched students' habits of commuter cycling to university. The data was obtained from 712 students at University of Zagreb using an on-line survey. The results showed that students mostly used public transport to go to university and that commuting by bicycle was the second most common choice. The frequency of bicycle use differed with regard to distance between the university and the neighbourhood where participants live. The frequency first increased and stopped at distance category from 2 to 5km when it started to decrease and was the least frequent at distances longer than 10km. Results of hierarchical regression show that all the components of TPB are significant predictors and explain 55.3% of the variance in intention of commuting by bicycle. Adding personal norm to the components of TPB made a significant contribution to explained variance of the intention (additional 2.3%). At the same time personal norm was the weakest predictor ($\beta_{attitudes} = 0.301$; $\beta_{perceived\ behavioral\ control} = 0.288$; $\beta_{subjective\ norm} = 0.211$; $\beta_{personal\ norm} = 0.168$). Our findings provide confirmation of the usefulness of the TPB components with addition of personal norm in predicting intention of commuting by bicycle to university. Practical and theoretical implications of the results are discussed.

Key words: theory of planned behavior, personal norm, bicycle, commuting

Pain threshold – Measure of pain sensitivity or social behavior?

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The main objective of this study was to examine the role of social status of the experimenter on the pain threshold for mechanical pressure. In addition, the aim was to examine the possible interaction of participant's gender and status of experimenter on pain threshold. Ninety-six first-year undergraduate psychology students participated in the study. They have been randomly assigned into two groups, but with the restriction that in both groups there was an equal number of male participants. In one group pain threshold was measured by their professor and in another group by a third year undergraduate student. Pain threshold to mechanical pressure was measured at four locations - the index finger and little finger on the left and right hand, respectively. Neither participants nor the two experimenters were aware of the research hypotheses. Both experimenters were equally trained to measure pain threshold by algometer device. Participants received description of pain threshold and a clear instruction that in this study the goal is the measurement of pain threshold, not pain tolerance. Obtained results showed statistically significant and large difference in pain threshold with regard to experimenter status. When the experimenter was professor, pain threshold was higher. Also, results confirmed expected role of participants' gender meaning that male participants had higher pain threshold. Interaction of experimenter status and participant's gender was also statistically significant. Pain threshold was higher in both genders when the experimenter was a professor, but the difference was greater in male students. Results of this study are consistent with previous studies that demonstrated the effect of experimenter status on pain tolerance and pain unpleasantness, measures generally demonstrated to be more subject to changes in measurement context. To conclude, the results of this study show that the effect of experimenter status is very large (partial eta = .59), suggesting that obtained differences are primarily caused by social behavior rather than changes in sensitivity to painful stimulation. Therefore, pain threshold does not seem to be a context irrelevant measure, which is something that should be considered in further pain studies.

Key words: pain threshold, social status, context

Self-reflection and webcams: Self-awareness in the context of computer-mediated communication

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Over forty years ago Duval and Wicklund (1972) imposed a new perspective in empirical research of self and especially the self-reflexive quality of the consciousness. According to authors, when someone's attention is directed inward, he is the object of his own consciousness and is in the state of *objective* self-awareness. When individual's attention is directed away from himself, toward external objects, he is the subject of the consciousness and in the state of *sub-*

jective self-awareness. Research since the 1970s supported the expectation that different self-focusing stimuli (e.g., mirrors, cameras, voice recordings, audience) can induce a state of self-awareness, whether in more private aspects or more situational or public states of self-consciousness. With the development, consequent accessibility, capacity, and equipment of (portable) personal computers, there is a potential new interest in objective self-awareness (OSA) theory. In an experimentally designed study we tested basic premises of OSA theory in the context of computer-mediated setting. Specifically, our investigation tried to answer the research question if webcam can induce an effect on different aspects of self-awareness. The results have many practical implications for psychology, technology, and communication studies.

Key words: self-awareness, self-consciousness, webcam, human-computer interaction, personality assessment

Flower-naïve bumblebee exploration behaviours point to the interaction of two visual properties

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This experiment tests the computational load hypothesis generated by an unsupervised neural network described by Orbán and Chartier (2013). Untrained, "flower-naïve" bumblebees were hypothesized to prefer symmetry only when the spatial-frequency of artificial flowers is high, which places great information processing demands on the bumblebees' visual system. Bumblebee choice behaviour was recorded using high-definition motion-sensitive camcorders. The results show support of the computational model's prediction: bumblebees' choice behavior was not independent at low and high spatial frequency one-axis symmetric and random patterns, and overall preference increased with increasing informational redundancy. The results are discussed in the context of the neural network model and other hypotheses generated in the literature.

Key words: vision, unlearned preferences, choice behaviour, bombus, comparative psychology

Research of Machiavellianism with a card game

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In our research we examined Machiavellian people's manipulative abilities by using a card game we designed specifically to this purpose. We worked with the Hungarian adapted version of Mach-IV test (Christie & Geis, 1970). By using this test we can classify people into groups of low, medium, or high level of Machiavellianism. First, we used a version of the Hungarian bluffing card game *Svindli* in which players have to be called several times during the game in order to win. In each round of the game three players participated with different Mach values. We hypothesized that persons with high Mach values are more successful than the average population, because of their superior manipulative skills. Furthermore, before the game we took a photo of each participant and we transformed the pictures into average faces. Then we constructed a gallery containing three female and three male faces of individuals with low, medium, and high Machiavellianism scores. We asked independent university students to judge the faces of the participants whether they were trustful and manipulative and to indicate the extent of it on a 5-point scale. Students were expected to regard persons with lower Mach values as more trustworthy and persons with high Mach values as more manipulative. The results of the card game indicate that high-Machs called more bluffs and more real bluffs than other Machs during the game ($r = .214$, $p < .05$). According to independent respondents the high-Mach female combined face image was significantly more attractive, but less trustworthy than the low-Mach face ($p < .01$). On the other hand, the male face image was more attractive and trustworthy than the high-Mach image ($p < .01$). In summary, high-Mach players were more risk-taking and impulsive and low-Machs were more careful and reserved during the card game. However, respondents can make distinctions among emotionally neutral low and high-Mach face images.

Key words: Machiavellianism, bluffing card game, manipulation, digitally combined face images

Impulsivity, mood induction, and socioeconomic status: Associations among childhood socioeconomic situation, induced negative mood, and behavioural inhibition

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A more disadvantaged socioeconomic status (SES) is often related to an increase in certain forms of impulsivity, such as the heightened financial risk taking propensity or the discounting of delayed greater rewards in favour of smaller immediately available ones. In the theoretical framework of behaviour ecology and evolutionary psychology, the explanation for this is that socially and economically deprived circumstances may prompt individuals to follow so-called short-term life history strategies that focus more on present than on future rewards. Our aim was to explore the effects of the level of social deprivation experienced in the environment in youth as a stable factor, plus the effect of induced negative mood as a temporary factor on the ability

to inhibit prepotent behavioural/motor responses as a characteristic measure of impulsivity. The study was conducted in the United Kingdom at Newcastle University. Fifty-eight individuals (20 male, 38 female, mean age = 32.7 yrs) were involved. First they completed a computerised questionnaire in which they indicated their postcode at age 16. The postcodes were later checked against the UK national statistics database and levels of social deprivation were obtained. Next, 50% of the participants read the negative Velten mood induction statements, while the other 50% read the same amount of neutral statements, devoid of emotional valence. The final step was the stop-signal task, which is widely used in measuring the ability to inhibit prepotent motor responses. Level of social deprivation is significantly positively correlated with the reaction time of the response inhibition ($r = .361$; $p = .005$). This means that the more deprived SES the participants experienced in their environment prior to age 16, the less able they were to inhibit their prepotent responses, so the more impulsive they were. When testing for response inhibition reaction time by mood induction type (e.g., negative or neutral), we found that the induction had no significant effect either in itself ($F = 0.426$; $p = .517$), or when the level of social deprivation was controlled for ($F = 0.434$; $p = .513$). On the other hand, social deprivation had a strongly significant effect in the model ($F = 8.241$; $p = .006$). People from socioeconomically more deprived backgrounds display an increased response inhibition reaction time, suggesting that cues to a harsher environment have set them up to have a lower power of behavioural inhibition. This finding sits well with the current literature: low SES situations are associated with higher rates of disorders that have behavioural inhibition at their core. It is also in accordance with behavioural ecology literature, where the fact that an aspect of behaviour is plastic dependent on early life environment is a recurring theme. In more disadvantaged SES situations, this plasticity in behavioural inhibition better enables people to adopt the more high-risk, impulsive, accelerated life strategy that is found in these environments.

Key words: socio-economic status, behavioural inhibition, mood induction, stop-signal task

Body image satisfaction of young adult females

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The aim of my study was to determine which factors can lead to a healthy, positive body image and satisfaction with one's appearance in young adult females. Body image anxiety, body dissatisfaction, and also eating disorders are increasing problems in Western societies, especially among young women (Grogan, 2008; Túry & Szabó, 2000). The contiguous exposure to ideal bodies promoted by mass media is one of the main factors leading to this phenomenon. These images trigger social comparison, and the discrepancy between one's own body shape and the ideal body can lead to serious distress and anxiety in women. Many studies charted the negative effects of mass media and causes of distorted body image (Cash, 2002; Derenne & Beresin, 2006; Monro & Huon, 2005). Positive body image however is a much less often examined area. In the current study I propose that successful coping strategies, a resistant psychological immune system, high self-esteem, healthy body weight, and regular physical activity can be protective factors against body image dissatisfaction. My further goal is to clarify how these variables interact with each other and how this contributes to the formation of body image. A total of 182 young adult women participated in the survey. Six questionnaires were developed to address body image, attitudes towards eating and the body, self esteem, coping, and resilience. Demographic data was collected including body mass index (BMI) and questions about sports habits. The results partly supported my assumptions. Body dissatisfaction proved to be a general phenomenon among the participants but higher self esteem and resilience correlated with a significantly more positive body image. The effects of exercising and bodily features however were not so unequivocal. Sport only seems to work as a protective factor among those who exercise rarely or not at all. More frequent training habits were associated with a more negative body image. Furthermore body dissatisfaction was highest among women with normal BMI not those who were overweight. These results raise further interesting questions and research directions.

Key words: positive body image, young women, self esteem, resilience, sport, body mass index

Depression and improvement in psychotherapy

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Our research question was how the condition of patients participating in brief dynamic psychotherapy changes, with special regard to depression, and whether this change can be grasped at the level of language. The research was conducted with the involvement of 25 patients at the Psychosomatic and Psychotherapeutic-Rehabilitative Department ("Tündérhegy") in Budapest. The patients were interviewed at the beginning and at the end of the treatment. Our questions were the following: How do you see yourself? How do others see you? If you could change anything in your-

self, what would that be? The texts were analysed by means of scientific narrative psychology. The depression scale of MMPI was used as the objective indicator of depression. MMPI was filled in by patients at entry and at dismissal from Tündérhegy. The alteration of MMPI depression scale was confronted with changes in the texts of patients with regard to negation, self-reference, and activity, and we concluded that the change in depression can be registered in the accounts of the patients. Therefore it is assumable that the whole identity develops through psychotherapy.

Key words: psychotherapy, depression

Theory of mind, Machiavellianism, and emotional intelligence

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Theory of mind or mindreading, that is, our complex ability to attribute mental states to others, is under intensive research in multiple areas of psychology. Most authors consider the theory of mind as one complex module, and pay very little attention to the fact that it includes more, partly independent processes. In this study, we examined adult mindreading and its relationship with emotional intelligence and Machiavellianism. We assumed that the theory of mind is not one big system, but that it has at least two distinct subsystems: an explicit and an implicit one. Explicit mindreading is based on situational context, and not behavioral clues, while implicit mindreading relies on the observed behavioral changes, thus we attribute feelings and thoughts to another person, based on his/her posture, facial expressions, and tone of voice. Therefore, we used a variety of tests, including a Swiss emotion recognition test, which has never been applied before in Hungary. We argue that Machiavellians should perform well in one type of the theory of mind tasks (explicit) and poorly in the other type (implicit). To measure individual differences in Machiavellianism, we used the Mach-IV task, and the Schutte Self Report Emotional Intelligence Test for measuring the EQ. Our results show that, according to our expectations, we can identify two subsystems of the theory of mind, which are distinctive. Also, high-Mach people score lower on the implicit tasks, and they are proved to be worse on the emotional intelligence test. It might be caused by the difficulty of recognising their own emotions, which they keep under control. However, their performance in the explicit tasks is slightly better.

Key words: theory of mind, Machiavellianism, emotional intelligence

Working through trauma and changes in identity among amputees

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Losing a limb is a traumatic liminal experience when self-image, body image, and the identity itself are deeply hurt. An amputation caused by illness or accident presents many traumatizing factors, such as a diminished realm of possibilities, a "diminished-value" body, a troubled self-esteem and self-image, phantom-limb pain, the transformation of private and social roles, and the stigma of disability. Thus adaptation involves a complex psychological process entailing the mourning of the loss of unimpaired identity, the assimilation of a new complex of roles, and an adaptive relationship with the stigmatized disabled role. In my lecture I shall examine the relationship between identity, the stigma of disability, and adaptation in interviews with amputee patients, all from a phenomenological perspective – that is, through the meanings with which people invest their condition.

Key words: amputation, identity, stigma, disability, phenomenology

Predictors of food attitudes in children

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Eating behaviour plays an important role in child development and health. Many parents are concerned about their child's nutrition and report about food neophobia or pickiness in their child. Within the framework of the Italy-Slovenia cross-border project P.E.S.C.A. on healthy food consumption education, we studied food attitudes in Slovenian children and their relation to different individual and family factors. Students of four primary schools ($N = 323$) and their parents completed the Food Attitude Statements inventory. Children's knowledge about food production chains and perception of several dishes were also measured. In addition, parents reported on how much they include their children in food production and preparation. Data analysis showed that food neophobia decreased and food interest increased with child age, whereas pickiness was not related to age. Females expressed higher food interest than males, but no significant gender differences were found in food neophobia or pickiness. Perception of a certain dish (its appearance, smell, and taste) depended on child's age, food neophobia, pickiness, and experiences with the dish. Child neophobia was related to parental neophobia and to child's knowledge about food production. Inclusion of the child into food production and

preparation was related to decreased child pickiness and increased interest in food. Our findings have implications for alimentary education. They point out to the factors that need to be addressed in such an education to reduce food neophobia and pickiness in children.

Key words: food interest, food neophobia, pickiness, food perception, family factors

Seismic risk and prevention perception by experts and lay people

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Earthquakes are among the most feared natural disasters. Prevention and mitigation activities are dependent on people's perception of seismic risk in one's environment. Therefore seismic risk perception and behavior of people in connection with it were often studied in earthquake prone regions. Results of a current survey on perception of seismic risk in general and risk to different types of constructions in particular, as well as perception of possible prevention measures, which was carried out on a sample of 240 construct engineers and 502 lay persons, are presented. They show that lay people feel less threatened because of earthquake threat to Slovenia than experts. Regarding perception of seismic risk to different types of construction, for experts are important both the time period and the type of construction. Experts and lay people opinions about acceptable costs of safer construction, responsibility for strengthening the objects, stimulation of earthquake safe construction, etc. were similar in direction, though could differ in degree. As expected, experts are more aware of seismic risk and relevant mitigation and prevention measures as well as their costs.

Key words: earthquake, mitigation, prevention, responsibility, risk, type of construction

A SNARC-like effect for note value: Differences and similarities with number representation

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The SNARC effect suggests the existence of an association between number magnitude and the space of response execution, with faster left key-press responses to small numbers and faster right key-press responses to large numbers. In the present work, we examined whether visually presented note value, as a symbolic representation of note magnitude duration, produces the same spatial association as numbers do. Musicians with formal musical education performed a series of order-relevant and order-irrelevant tasks. Surprisingly, the association in the order-relevant task revealed a reversed direction from the expected one. Participants generally responded faster to relatively long duration notes with the left key-press and to relatively short duration notes with the right key-press. Otherwise, order-irrelevant tasks showed overall different association patterns, suggesting the existence of separate mechanisms involved in order-relevant and -irrelevant tasks. Importantly, note value differs from numbers in the usual sequence of magnitude representation, as the typical order of note value representation goes from the largest magnitude value to the smallest value, while the opposite is true for numbers. This feature gives note value a great importance in discriminating between the magnitude and the sequence order representation as the cause of the spatial association. Such differences, as the diverging results revealed in the order-relevant and -irrelevant tasks, will be discussed.

Key words: SNARC, note value, note duration, music cognition, spatial response correspondence

Stereotype consistent and inconsistent scenarios in a new experimental game: The third-party punishment and reward game (TPRG)

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According to Dion, Berscheid, and Walster (1972) people tend to assume that highly attractive individuals possess more socially desirable personality traits (e.g., altruistic) than those of lesser attractiveness. In a game involving trust and reciprocity Wilson and Eckel (2006) found that attractive trustees were viewed as more trustworthy; should they fail to reciprocate however, participants inflict larger punishments on them than on less attractive cheaters (*beauty penalty*). In our study we intended to analyze how attractiveness affects the social norm enforcement in a third-party punishing and rewarding context. The *third-party punishment and reward game* (TPRG) consisted out of two steps. First the participants had to observe a short public goods game between two fictitious individuals, and then they had the opportunity to punish and/or to reward either just one or both players. Interfering in the game was costly for the participants. Among the eight rounds of the game there were stereotype consistent (attractive co-operators with unattractive free-riders) and stereotype inconsistent (attractive free-riders with unattractive co-operators) scenarios. All of our

115 participants (58 females and 57 males) were volunteer undergraduate university students, aged between 18 and 31 years ($M = 21.2$; $SD = 2.12$). In line with Wilson and Eckel (2006) we found that attractive free-riders were punished more severely than unattractive ones. Additionally participants rewarded unattractive co-operators more than those of higher attractiveness. Thus we can conclude that stereotype inconsistent scenarios evoke more extreme interventions than stereotype consistent scenarios do.

Key words: strong reciprocity, attractiveness, stereotypes, TPRG

Social attitudes towards "Big Brother": A test of social identity theory with German students in Austria

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Due to EU and national legislation, during the past years there have been rising numbers of German Psychology students in Austria (e.g., Salzburg 77.5%, Innsbruck 75.3%, Klagenfurt 37.0% German first-year students). Considering similarities of language and culture, little difficulties would be expected. On the contrary, social identity theory (SIT) postulates that in the view of similarity, the smaller and/or less powerful partner will tend to denigrate the larger and/or more powerful one out of fear of identity threat, while the more powerful partner ("Big Brother") will keep a rather neutral view: Although Germans (as compared to the general population) still constitute a numerical minority in Austria, according to SIT, possible identity threat does not follow from absolute numbers of individuals at a certain place, but from their understanding of belonging to the smaller and less powerful culture (i.e., Austria) as opposed to the larger and more powerful one (i.e., Germany) on a more abstract level.

We tested this assumption by qualitative interviews (24 German students at Innsbruck) and by explicit and implicit attitude measures (31 Austrian and 49 German students at Klagenfurt). Whereas the explicit questionnaire measures yielded no results, data from the Implicit Association Test and qualitative results confirmed the assumptions from SIT, pointing to massive rejection of Germans by Austrians, whereas the opposite was not true. For socially sensible attitudes, we also conclude that on questionnaires many respondents will reply in a socially desirable way out of the desire "not to appear prejudiced".

Key words: social identity theory, country images, Germany, Austria, Implicit Association Test

Valence and efficacy: Two affective dimensions underlying ethical decisions

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Whereas Kohlberg had conceptualized moral development on merely rational grounds, Johnathan Haidt's social intuitionist model (SIT) emphasized the affective motives underlying ethical decisions and human values. We investigated the dimensionality of these motives by semantic differential, comparing two theoretical approaches: whereas Osgood had conceptualized three dimensions of affective meanings (evaluation, power, and activity), Fiske's concurrent two-dimensional stereotype content model (SCM) postulated the orthogonal dimensions of competence and warmth, representing the affective component of interpersonal perception. In the present research, 274 respondents ($N = 136$ female; mean age 39.14 years, $s = 18.35$) rated single words related to the value domains of harmony, intellect, religiosity/spirituality, conservatism, and materialism. Exploratory factor analyses yielded two factors, Valence and Efficacy, confirmed by parallel analysis and corresponding to the SCM, while disconfirming Osgood's three-dimensional model. The results are in line with the SIT's expectation that values underlying ethical decisions can be described by substantial and meaningful affective components.

Key words: ethics, human values, semantic differential, stereotype content mode

Narrative features of the workplace: Analysing workplace narratives

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This study is focused on the social reality of the workplaces and its effect on member identification. Every working group creates their own working methods, world views, norms, and behavioral regulations, in short, their own culture. Organizational cultures could be investigated with different kinds of methods, like questionnaires, case studies, etc. These methods, however reliable, have a hard time grasping the "complex, ambiguous, unique nature" (Phillips, 1995) of the social reality of organizations. According to Schein (2004) there are three levels of organizational culture: artefacts, espoused beliefs, and underlying assumptions. However, underlying assumptions have the most important impact on member behavior, and also, they are the hardest one to capture and analyse. With the toolbox of narrative research, we believe they could be examined far more

closely. The narrative approach offers a better understanding of the dynamic nature of workplaces (Boje, 2001). Also the psychological effect on organizational members could be investigated more intensively by analysing their workplace narratives.

Our study is built on the theoretical foundation of narrative psychology developed by János László (2005) and his colleagues. According to this theory personal narratives are products of the dynamic interaction between the person and their social context and they carry psychologically relevant linguistic markers. The frequency of these markers in the text informs us about the psychological state of the narrator and also about the degree of identification with the social context, in our case the workplace.

Narrative feature of workplace is derived from the representational aspect of social reality. According to Moscovici (1984), people create their own social reality through language and communication. Organizational culture can be considered as a special type of social representation (Jakab, 2003) since organizational members are bound to create their own rules of operating, and interaction is mediated by language and communication. Narratives are the "main carriers of knowledge" (Czarniawska, 1998) and therefore suitable for processes of "sensemaking and reducing ambiguity" (Weick, 1995).

In our study participants were asked to answer open-ended interview questions about the organizations they currently work in. They also filled out multiple questionnaires concerning type of the organizational culture, identification, organizational citizenship behavior, and turnover intention. Interviews were analysed by computerized content analyser programs (NOOJ; AtlasTi). We identified a series of linguistic markers based on theoretical background of narrative psychology: appraisal, emotion, cognitive verbs, personal pronoun (*I, We*). We wanted to investigate if there is a connection between the frequency of certain linguistic markers and work related concepts of the questionnaires.

Key words: narrative psychology, social representation, organizational culture, member identification

The relationship between psychopathic traits, gambling-related problems, and substance use

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The current study investigated the association of psychopathic traits with gambling-related problems, substance use, gambling, and substance versatility in Croatian sample of non-referred boys and girls. Psychopathic traits were measured by the self-report Youth Psychopathic Traits Inventory (YPI). Results of the regression analyses showed that the impulsive-irresponsible (II) behavioural style fully mediated the relationship between affective and interpersonal psychopathic traits and substance use, substance versatility, and gambling versatility. With respect to gambling related problems, after entering the II dimension into the model, callous-unemotional traits became a negative postdictor of gambling problem severity. Furthermore, significant interactions emerged that provide evidence of gender as a moderator in the relationship between psychopathic traits and gambling-related problems and gambling versatility. Specifically, the II dimension exercised a stronger influence for boys compared with girls. Novel to our study was the finding that the grandiose and manipulative interpersonal style conferred protection from gambling-related impairment in girls, whereas conferred risk in boys. Of note, in groups of girls, the simple slopes were small and nonsignificant. Another novel finding was that the callous-unemotional traits acted as an inhibitor of gambling-related impairment in both boys and girls, although the effect was stronger in males.

Key words: psychopathic traits, gambling, substance use

Stimuli context and context of expectations – Which one has more influence on pain perception?

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In the field of psychophysics research, if stimuli are presented in mixed series of different intensities, effects of stimulus context may appear. For example, the assessment of a particular stimulus intensity may depend on the intensities of other stimuli in the series. Outside the psychophysical context, the perception of the intensity (especially of painful stimuli) can be modulated by numerous additional cognitive factors. One of the most prominent is the expectation of pain intensity that will occur. The aim of this study was to investigate the influence of psychophysically manipulated stimuli context and verbally manipulated expectations on perception of weak and strong electrocutaneous pain stimuli.

The experimental design involved four independent groups. Groups were previously counterbalanced regarding painful sensitivity. The first experimental group received a series of weak electrocutaneous stimuli and was verbally instructed that they will receive weak painful stimuli. The second group received the same series of weak stimuli and were told that they will receive strong painful stimuli. The third group received a series of strong painful stimuli and were told that they will receive weak painful stimuli. The fourth group received a series of strong painful stimuli and were told that they will receive strong painful stimuli. So, for the two groups the intensity level of the stimuli in the series was in accordance with verbally manipulated expectations, and in other two it was not. The four strongest stimuli

intensities from weak series were the weakest stimuli in the strong series. Using such a design, we were able to observe the effect of stimuli context, i.e., estimation of the same intensities in different series of intensities on the one hand, and the effect of expectation on the other. Participants estimated the intensity of the stimulus on a verbal analogue scale of 30 units.

The results showed that there was no effect of manipulated stimulus context. The same stimulus intensities, when they were the weakest in series or as the strongest in the series, on occasions when verbally manipulated expectations were consistent with intensity of series were estimated equally intense. However, the results showed a clear influence of the expectations manipulated by verbal instruction. When the series was weak and has been suggested to be strong, the estimates were in line with expectations manipulated. They estimated weak stimuli as very strong. When participants received objectively strong stimuli, and were informed that they were weak, they estimated them as very weak. The results suggest a strong influence of verbally manipulated expectation on pain perception, while psychophysical context had no effect.

Key words: pain perception, stimuli context, expectation

A way to motivate the students to fill out teacher evaluation forms

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As a provider, it is essential for the university to have a valid educational quality assurance. The current law and ethical code does not allow us to oblige the students to fill out the feedback questionnaires. The self completion rate is low and providing a high-enough rates for quality assurance is troublesome. It was inevitable to create a motivational system to solve this issue. With the professional help of jurist, sociologist, and educational organizers we have created methods to motivate the students. Every option was acceptable by law and ethical norms. We used self-registered online questionnaires to analyze how strongly the offered options would motivate the students. Of all alternatives, 70% of the students picked the possibility for earlier exam registration. Those students who gave feedback on obligatory subjects within the set deadline were awarded a bonus that entitles them to a one day earlier registration for exams. Out of 13,925 questionnaires from the spring semester 2013, 6848 have been filled out, i.e., almost 50%. The questionnaires were available for 2,408 students, of which 1,122 students (46.6%) were obliged for early registration. In the autumn semester 2013, 62% of the questionnaires (from total of 18,731) have been filled out, which made the early exam registration possible for 59% of the students. It is vital that this rate was divided equally between all subjects, which gave us a general view of student satisfaction.

Key words: motivation, teacher evaluation, exam registration, filling out rate

Context and cues: Flexible frames in language and the mind

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The study is based on an empirical research investigating the cognitive developmental background of non-compositional processing, focusing on two common forms of polysemy: metaphor and irony. We investigate preschoolers' linguistic performance with semantic and pragmatic tasks (including simile, metaphor, and three irony trials). Success in the linguistic trials is viewed in relation to children's mentalization skills tested with first- and second order False Belief Tests to see if ToM skills predict success in pragmatic competence, and if different levels of mentalization (if there are any) contribute to the successful decoding of the different forms of non-compositional constructions.

The results suggest that the interpretation of metaphor and irony do not seem to be based on the same cognitive mechanisms. Irony is interpreted via a special shortcut strategy, with different heuristics, where ostensive signals (Alberti, 2011; Csibra, 2010) such as intonation patterns are integrated in the multi-faceted interactive process of meaning-construction. For this reason, it is successfully interpreted by preschoolers at an early age. This renders metaphor a more versatile phenomenon, complex and graded as it is, where the several factors and their coordination require greater cognitive load from preschoolers. Contrary to long-standing views in literature on the developmental aspects of irony processing (Gibbs, 1994), productive use of metaphor, therefore, is stabilized later than that of irony, despite the fact that in traditional pragmatics the two belong to the same category, to the infringement of the maxim of quality (Brown-Levinson, 1978).

In conclusion, the results indicate that polysemy and thus non-compositionality have a number of levels, demonstrating a graded salience (Giora, 2001) resulting in a matrix with several levels of complexity. Irony is interpreted by means of a compensatory strategy, where context, intonation, and a number of social-cognitive factors contribute to the triggering of the short-cut strategy, resulting in a different heuristics as a shortcut to the intended meaning.

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Key words: language use, linguistic development, preschoolers, polisemy, theory of mind

Hungarian identity - Gypsy representation

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Using the approach of social representation (Jovchelovitch, 1996; László, 1999; Moscovici, 1961; Wagner, 1998) and social identity theories (Breakwell, 1986; Tajfel, 1979; Tajfel & Turner, 1978), we were interested in how the content of the identity of the majority and the majority representation about a minority are in a mutual influence. We will present a study with 613 secondary school and university students made in 2014 in the Hungarian context. We were interested how students' age, their type of schools, their experience of voluntarism, and their religiosity are influencing their representation about the Hungarian and the Gypsy. We used a complex methodology including projective tests, like associative networks (de Rosa, 2002) and mental map of groups (Bigazzi, 2009) story telling, and other quantitative measurements like the social distance and prejudice. Data were also confronted with similar measurements of 2006 and 2008. In data analysis we used SPSS, SPAD-T, Evoc, and Excel trying to interweave the different data obtained. However, data-analysis is still under process. Our first results confirm not only the increase of prejudice, but also the change in content both in the representation of the Hungarian and of the Gypsy. We found that prejudice is positively correlated with religiosity and negatively with voluntary work experiences; that differences among different schools are relevant, and that there is a growing tendency to think in terms of cultural homogeneity and differences, instead of legal definitions of group.

Key words: social representation theory, social identity theory, majority, minority

Internet violence among high-school students in Vinkovci

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Research goal was to investigate incidence of Internet violence and its correlates like social support, self concept, parental behavior, stress coping strategies, risk behaviors, and "face to face" violence. Research was conducted on two samples of second grade students (N_1 = 249, school year 2010/2011; N_2 = 339, school year 2011/2012). The following instruments were used: Cyber Victim and Bullying Scale, Social Support Scale, Parental Acceptance-Rejection Questionnaire, Marsh's Self Description Questionnaire III, The Coping Inventory for Stressful Situations, Youth self-reported delinquency and risk behaviors questionnaire and Revised Olweus Bullying Questionnaire. Prevalence of internet violence in first sample was 24.9% (experiencing) and 27.7% (committing) and in second sample 17.7% (experiencing) and 16.5% (committing). Decrease is probably the result of some preventive actions, but the numbers are still high. In first sample it was found that the predictors of experiencing Internet violence are parental behaviour and committing violence on the Internet, whereas the predictors of committing Internet violence are gender (males commit more violent acts), the amount of time spent on the Internet, avoidant coping, and experiencing violence on the Internet. Committing violence on the Internet is the most important predictor of experiencing violence on the Internet and vice versa, which was expected. With this model, 43% variance of experiencing Internet violence and 47.7% of committing Internet violence was explained. In the second sample, two sets of hierarchical regression analyses were conducted. First set showed that the predictor of experiencing Internet violence is undesirable normative behavior (14.8% of criterion variance explained), whereas the predictors of committing Internet violence are undesirable normative behavior and violent and minor delinquent behavior (34.8% of criterion variance explained). In the second set of hierarchic regression analysis, direct experience, direct doing, and indirect experience of face to face bullying significantly contributed to experiencing Internet violence and explained 20.9% of the variance. Direct experience and direct doing of face to face bullying were predictors of committing Internet violence (31.8% of variance explained). These results show that Internet violence is a very important type of risk behavior with some relevant connections with traditional risk behaviors and bullying, and with correlations to variables like parental behavior and time spent on the Internet, which can be used in some preventive activities.

Key words: internet violence, risk behavior, bullying, parental behavior

Parental multitasking ability

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Neurological changes are observed in connection with certain steroid hormones during pregnancy and postpartum, e.g., neurogenesis in prefrontal cortex, parietal lobes, and midbrain areas (Kim, Wang, Leckman, Feldman, & Swain, 2010; Oatridge, Holdcroft, Saeed, Hajnal, Puri, Fusi, & Bydder, 2002). Some of these steroids – especially estradiol, progesterone, and testosterone – have been shown to influence cognitive functioning in verbal fluency and verbal memory of names, working memory, and prospective memory (Grigorova, Sherwin, & Tulandi, 2006; Sherwin, 2012). Fathers are also affected by steroid changes (prolactin and testosterone) postpartum in connection with biographical factors (Delahunty, McKay, Noseworthy, & Storey, 2007; Fleming, Corter, Stallings, & Steiner, 2002). This study aims to clarify if parenthood affects the so-called multitasking-ability (working memory, attentional control, and planning). I hypothesized that parents might handle additional cognitive load of working memory better than non-parents, are less distractible in their attention, and might have superior planning abilities due to their daily experience.

Four groups (men and women, with or without children; $N = 78$) with similar educational level conducted an adapted hierarchical flanker task (FT; Ren, Zhou, & Fu, 2009), a standardized planning task (O-P-A; Menzel-Begemann, 2011), and a number-letter-task (NLT; Rogers & Monsell, 1995). Parents, especially fathers, excel in abilities of inhibition in O-P-A ($p = .04$), as well as NLT with lower failure rate ($p = .008$). In flanker task, parents show higher compatibility effects than non-parents under a less stringent condition (simple task, $p = .01$), but increasing performance under additional cognitive load (hierarchical task, $p = .51$) which isn't observed among non-parents. Nevertheless there still may be a job-related influence (e.g., especially fathers in this study worked in positions that followed higher education). In sum parents outperform non-parents only in a few parts of the tests. Results are discussed with special focus on their attentional performance.

Key words: parenthood, multitasking, working memory, attention, flanker task, compatibility effect, cognitive load, task switching

Predicting sexual satisfaction: The role of body appearance and body image self-consciousness

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Understanding variables that predict sexual satisfaction has significant implications for sexual health. Sexual activities create a focus on the body, for both men and women. It is well known that body image (directly or indirectly) can affect all stages of sexual response, and this reflects on affective and cognitive evaluation of the sexual relationship. The aim of this cross-sectional study was to closely examine the role of some aspects of body image for sexual satisfaction. A sample of 144 undergraduate female students (from 19 to 31 years of age), who were in a romantic sexual relationship, participated in the study. The participants completed the Body Areas Satisfaction Scale (BASS), Body Image Self-Consciousness Scale (BISC), New Sexual Satisfaction Scale (NSSS), and Sexual Behavior Questionnaire. Results indicated that women satisfied with their body appearance and less concerned about their bodily appearance during sexual activities had greater overall sexual satisfaction. Together, body image variables explained significant proportion of sexual satisfaction score variance. Body image self-consciousness during sexual intimacy partly mediated the relation between body image satisfaction and sexual satisfaction, and frequency of sexual behavior partly mediated the relation between body image self- consciousness and sexual satisfaction. To conclude, body image is an important factor contributing to sexual satisfaction in women and should be considered in treatment of low sexual satisfaction.

Key words: sexual satisfaction, body appearance, body image self-consciousness

The role of personality traits in the relationship between creativity and cyberbullying

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Is it possible to transform the disobedient, aggressive behavior of school students into a behavior which enhances creativity oriented towards social problem solving? Recent researches (Gino et al., 2014; Pool et al., 2011) suggest that there is a strong relationship between specific elements of creativity and aggression. Results prove that the lack of feeling constrained by rules is a common trait in both creative manifestation and dishonest attitude. Our research aim is to assess the association between cyberbullying and the creative style of school students, identifying also the personality traits which influence this relationship. Study participants are 9-11th grade students from Transylvania. Preliminary results show that there is a direct relation between overall self-perceived creativity, conscientiousness, and the victim status. Data suggests that altruism is an important factor in the association between creativity and aggressor status in cyberbullying.

Key words: creative style, cyberbullying, Hexaco-model, victim, aggressor

Connections between identification with the nation and the structure of lay group history narratives of a transborder Hungarian sample

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Application of the perspective of scientific narrative psychology has proved to be fruitful regarding the research of personal identity (László, 2008). And in recent years, scientists tend to apply this theory and methodology more and more frequently when investigating social identity, too. There is strong connection between national identity and the construction of narratives on group history. (László, 2014). Pólya and Kővágó (submitted) in their study found significant correspondence between the structure of group narratives and identification with the nation, which is an important feature of national identity. The aim of our present study was on one hand to further investigate the relationship between identification with the nation and narrative structure. On the other hand, we wanted to test whether the former findings could be generalised by using a sample different in nature: a group which consists of transborder Hungarian people (living in minority) instead of residents of Hungary. Our research involved 98 subjects: 64 living in Serbia and 34 living in Ukraine. These subjects were asked to write down a story about an event of Hungarian history which is most important to them. These narratives were analysed by NarrCat (Narrative Categorical Content Analysis), which was developed by László et al. (2013). Identification with the nation was assessed by a questionnaire created by Szabó and László (2012). Independent samples t-tests showed us that the level of identification with the nation was significantly higher for Hungarians living in Ukraine than those who live in Serbia. Also, the former use significantly more negation formulas in their narratives than the latter. Investigating the complete sample ($N = 98$), we found correspondence between narrative linguistic markers of narrative structure and identification with the nation, for example: The higher the identification with the nation, the more frequent usage of words indicating cognition occurs. The frequency of other narrative markers also correlated with the identification with the nation: positive evaluative expressions and *we* reference positively, and expressions of activity negatively. These findings are explained applying the perspective of scientific narrative psychology.

Key words: scientific narrative psychology, identification with the nation, automatic language processing

A scientific examination of the Machiavellian strategy

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Machiavellianism is a combination of a behavioural strategy characterised by the tendency to manipulate and exploit others and a worldview resting upon cynicism and opportunism. The aim of our study was to explore the extent to which highly Machiavellian people tend to trust others or reciprocate favors. One hundred and sixteen university students participated in our study (mean age 22.31 years; *SD* = 2.91). The subjects volunteered to participate in the experiment and received financial remuneration for participation. To measure the level of Machiavellianism we used the Mach-IV questionnaire. To model everyday relationships, we used the so-called trust game. We found no correlation between the level of Machiavellianism and the level of trust, but our results showed negative and significant correlation between the level of Machiavellianism and the level of reciprocity. The outcome of our experiment shows that the person who reached high scores on Machiavellianism offered no less money as a first player, however, as a second player high-Machs reciprocated less money than the person who reached low scores on Machiavellianism scale. Our results suggest that the persons who reach high scores on Machiavellianism, so basically manipulative and self-interest proving, tend to not reciprocate others' trust and favor.

Key words: Machiavellianism, trust, reciprocity, trust game

From poems to choral fantasy – "There is a song in everyone's heart"

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The oft-quoted line in the title of this presentation is from a long hidden poem of Babits Mihály the *Második ének* (*Second Song*). Babits has written this four-act fairy tale play as a young teacher before the First World War, and only the third act of the play – "A vihar" ("The Storm") - was published in the literary journal *Nyugat* (*West*) in 1911. His wife Török Sophie didn't know about this play and only published the full play in 1942, after the death of Babits. Szokolay Sándor discovered it in the sixties and using the words he created a *choral fantasy* titled *A zene hatalma* (*The Power of Music*), the composition of which he finished in October 1969. He also used a late poem of Babits titled *Mint forró csontok a máglyán* (*As hot bones at the stake*). In this presentation I will describe the fairy tale play through the methods of analyzing the symbolism and the content, and I will compare it to the choral fantasy from a music theory connection (rhythm, dynamism, sonority, tune, form).

The use of NOOJ psychological content analyzing program shows interesting and valuable results. The review could contribute to the field of art and production psychology and with important results also to measure the mode of action of the music.

Key words: art psychology, effect-mechanism, content analysis, operacionalism

Social representations of psychiatry: Towards an interactionist model of mental disorder

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The social representation of mental illness is widely explored in the literature (e.g., DeRosa, 1991; Foster, 2001; Jodelet, 1987) yet that of psychiatry remains relatively undisputed. One of the main objectives of my research is to fill in this gap. The other is the question of academic discourse which is divided in the field of psychopathology. On one hand—my argument goes—the biomedical discourse defines the main stream of research and the institutional structure and function of psychiatric treatment due to several reasons such as the development of neurobiological research. The other significant discourse of the field can be collectively referred to as the psycho-social explanations of individual behaviour. There have been attempts at unifying and integrating these two main branches (Engel, 1977; Kandel, 1998) but the success of these attempts can be debated. It can be suggested that instead of focusing on the traditional problem of body-mind interaction, attention should be shifted to the dynamic-relational environment in which mental disorders are developed. I would like to argue that the form and content of mental disorders are heavily influenced by their conceptualization and the social-cultural context in which they are signified (Foucault, 2002). In this social constructivist perspective, some cases of mental disorder can be postulated as a form of communication in which the process of signification is disrupted between the individual and her environment. This line of thinking is not new and can be traced back to the beginnings of psychoanalysis. Yet the decontextualized individual is still the main focus of mental healthcare in the western world. In my presentation I will focus on how social representation theory and the narrative concept of lifestory can help formulate new approaches in this regard and shed new light on the relevance and meaning of mental disorder in the interaction of individual and society instead of the social construction of concepts like illness and health.

Key words: mental disorder, social representations, psychiatry, biomedical discourse

Alchemy and psychology through the lens of arts

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The present paper extends on the psychological relevance of alchemy, the sacred art of the transmutation of base metals into gold. C. G. Jung found that the symbolic language of alchemy is analogous with archetypal principles and can narrate the psychic integrating process, which he called individuation. Since Jung we have been able to see how alchemical symbols evoke the transcendental aspect of the personality. The secret code of alchemy is hard to be comprehended but easy to be found. In the contemporary world we can see a vast number of pieces of art inspired by alchemy. From architecture and painting to street art alchemy has influenced various art forms. The presentation interprets the relation between psychology and alchemy from a Jungian perspective through different contemporary works of art. The presence of the alchemical way of thinking in Pécs is also highlighted.

Key words: alchemy, psychology, symbols, art

Transition to kindergarten in Hungary: The case of non-native speaking children

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Our paper will focus on the emotional and relational impacts of entering kindergarten on non-native speaking children in Hungary. Transition to school is in itself an emotionally intense period for children and their families: children are excited about becoming "big boys/big girls", yet they struggle with anxiety and the fear of being separated from their parents (or other caregivers). In addition to this, non-native speaking children have to deal with the incapacity to express what they are going through. In order to better understand them, we conducted a longitudinal study from September to December 2013 in a Hungarian kindergarten with a high concentration of immigrants (Chinese, Vietnamese, and Mongolian). Our methodology includes Bick-Tavistock model-based class observations, surveys, and interviews with parents and teachers. This presentation will show the first findings of our field work: they reveal trends that suggest that the transition period might be more challenging for non-native speaking children.

Key words: transition to kindergarten, emotional experience, non-native speaking children

Self-esteem, self-conscious emotions, resilience, trait anxiety, and their relation to self-handicapping tendencies

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"Self-handicapping involves any action or choice of performance setting that enhance the opportunity to externalize (or excuse) failure and to internalize (reasonably accept credit for) success" (Jones & Berglas, 1978, p. 406). The present study examined the role of potential precursors in the self-handicapping process. A total of 626 undergraduates from various Hungarian universities completed measures of dispositional self-handicapping, self-esteem, self-conscious emotions, trait anxiety, trait resilience, and social desirability. Self-handicapping is related positively to trait anxiety, shame-proneness, externalization, and detachment, while negatively to self-esteem, resilience, and social desirability. These results provide additional evidence in support of previous studies about the deleterious effects and antecedents of self-handicapping. Since these results are correlational in nature, future investigations need to clarify the contribution (in a sense of causality) of each variable in the self-handicapping process.

Key words: self-handicapping, self-esteem, resilience, self-conscious emotions, trait anxiety

Emotional memory in actors

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The main goal of this research is to determine if emotional memory helps actors in creating emotions associated with a particular role. In this study we have used a qualitative method where 27 respondents from Macedonia who are professional actors were interviewed in a structured interview with open questions designed for the needs of this paper. Interviews were conducted in the period from January to March 2014. The interview consisted of 12 questions measuring the power and richness of emotional memory, relationship between emotional and sensor memory, and the benefits and disadvantages of extraction of emotion from the memory. From the socio-demographic data, gender and working experience of the respondents were taken into account.

Survey results showed that the actors with more working experience have more powerful and richer emotional memory than those with less working experience. Emotional memory is usually used for easier and faster expression of negative emotions. Female respondents and those with longer experience have negative psychological consequences from constant reviving of the emotions from the past. For those with less experience and male respondents, the use of emotional memory makes them happier. Female respondents and those with longer working experience use more sensor memory because it is a technique that relaxes them and reduces the negative effects caused by the use of emotional memory, and male respondents with less experience use triggers because they have weaker and poor emotional memory.

Key words: emotional memory, actors, gender, work experience

Relationship between self-regulation and procrastination: A mediational role of self-esteem

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Procrastination is a tendency to put off an intended action or decision. It is one of the reasonably un-explored psychological constructs. Considerable attention has been given to procrastination in university setting with findings that procrastination in academic setting is closely related to lower levels of self-regulation and self-esteem. In this respect, the aim of the present study was to examine the mediation role of self-esteem on the relationship between self-regulation and procrastination. Therefore, a hypothesized structural model was constructed to see the mediational relationships among the selected variables and to see to what extent the combination of these variables accounts for engaging in procrastination. The total of 426 undergraduate students (218 female, 208 male; $M_{age} = 21.3$, $SD = 1.5$) were administered Tuckman Procrastination Scale, Self-Control Schedule, and Rosenberg Self-Esteem Scale. AMOS19 was utilized to test the model. Results revealed good fit of the data to the model. Specifically, procrastination was negatively predicted from academic self-esteem and self-regulation. The findings also validated that self-esteem partially mediated the association of procrastination with self-regulation. Squared multiple correlation coefficients (R^2) of procrastination was .46, suggesting that self-esteem and self-regulation explained 46% of the total variance in procrastination.

Key words: procrastination, self-esteem, self-regulation

Years of expertise in chess: Age is kinder to the initially more average

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The aim of this study was to examine skill acquisition process in chess expertise, in particular the hypothesis that age is kinder to the initially more able. According to previous research, experts with higher rating scores, thus initially more able, show lesser decline by age in later years. However, these studies frequently use databases that gather responses for only one part of the population, the best players (e.g., International Chess Federation - FIDE database), thus restricting the range of the data. The goal of this paper was to examine whether age is kinder to the initially more able, by comparing trajectories over lifespan in the restricted range data, best players (FIDE database), and the unrestricted range (German national database). We applied generalized additive models on rating scores in two databases. Analyses show different effect of years on rating scores. Players in the FIDE database have consistently higher ratings compared to German players. Nevertheless, increase of rating points is more pronounced in the German database, while players in the FIDE database show shallow increase to the peak. Additionally, decline in later years is also different, namely FIDE players are declining faster that their German counterparts. In addition to the first analyses, we divided players based on their rating score and performed analyses on subsampled data. Results show that worst and best players have steeper decline of rating scores in their later years, while average players show almost no decline at all. Present results do not favor the hypothesis that the age is kinder to the initially more able. Rather, they show that the decline of rating scores is influenced by two factors. On the one hand, knowledge and experience of best players are keeping them best in their field through the years. On the other hand, best players have more to lose and their decline is more pronounced compared with average players. In summary, our results show that the age is kinder to the initially average ones.

Key words: expertise, skill acquisition, gerontology, chess

The effect of reading direction on emotion recognition

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In our everyday life we read as naturally as we eat, speak, walk, breathe, yawn, and so on. We can explore old, current, and new thoughts about life in every aspect. Reading is a mean of communication and entertainment. We never really think about that it might have any effect on us other then learning about the content we are reading. In this experiment we tested if the direction of reading (independently from its content) may or may not influence our emotion experience. We tested a small sample of 30 Japanese subjects in a repeated measures setting where reading direction, testing time, gender, and text content were all counterbalanced.

Participants completed an emotion recognition task twice in a one day to one week time, one time reading in a left-to-right (LR) direction before taking the test and in a top-down (TD) direction the other time. Results show differences between the two conditions. While LR readers are better at the recognition of angry, sad, and fearful faces (tendency), TD readers are better at discerning neutrality from faces with neutral expression. Also, TD readers are faster at detecting fearful faces (tendency) while LR readers are faster in the judgment of complex emotions. An unexpected interaction has been found between men and women, women performing better at recognizing happy faces while reading in a TD direction, while men perform better in the LR condition. The possible explanation for the differences involves visual field discrepancies during reading and their assumed connection with brain activation. Based on these positive results we encourage more research to be conducted in the future to verify the observed effects and to refine the present findings.

Key words: reading direction, facial expressions, emotion, emotion recognition

Psychology in society. Society in psychology. The Hungarian psychological institutional system from the perspective of critical psychology

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The Code of Ethics of the Hungarian Psychological Association (SZEK) describes five basic principles to guide the psychologist in his or her profession as an ars poetica. These values include respect of human dignity, engagement and responsibility, integrity, professionalism, and the principle of helping others. The second main principle states that a psychologist "feels responsible for society, for the smaller community, and for his or her clients. […] He or she works for the sake of the common good" (SZEK, 2004). Although the Code of Ethics of the Hungarian Psychological Association admits the importance of social responsibility and endeavor for the common good, it does not specify the relevant topics. Hence the question arises why the professional ethics deals with ethical principles of research in twenty-two points, while the issue of social responsibility occurs as a basic principle only once in the text. It is an axiom that psychology focuses on the client's personal experiences. However, the social context cannot not be completely excluded from therapy, as personal experience and social reality are interconnected, which should be self-evidently reflected at every level of the psychological institutions. This theoretical study analyses how social responsibility toward in-groups and out-groups, and consequently power relations and the support of equality appear in the psychological institutional system.

Multilevel analysis of suicide attitudes, beliefs, and causal attributions: A multinational migrant study on the effects of context, culture, migration, and demographics

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Lay theories of suicide (suicide attitudes, beliefs, causal attributions) are important for suicide prevention and psychoeducation. Individual differences therein might be influenced by both personal (individual-level) and contextual (aggregate-level) factors. Particularly, prior research has linked higher suicide acceptability to weaker personal religiosity as well as to higher environmental suicide prevalence (Eskin et al., 2011). However, this finding was based on just a two-country comparison (Austria, Turkey) among medical undergraduates. Here, we significantly extend and elaborate this line of inquiry in terms of study design, sampling, trait measures, and data-analytical finesse. Our findings are based on about 3000 general-population individuals from 13 (including Alps-Adria) countries (Austria, Croatia, Germany, India, Hungary, Kazakhstan, Peru, Poland, Romania, Russia, Slovakia, Spain, Turkey). We implemented a consistent, focused migrant study design throughout, such that individuals from each country were compared with their respective migrant group in Austria/Germany (e.g., Hungarians living in Hungary compared with Hungarians living in Austria). Utilizing multilevel modelling techniques, we conjointly accounted for personal factors (sex, migrant status, religiosity), contextual factors (national suicide rates, Hofstede's cultural dimensions), and their interplay. Altogether, results show that both personal and contextual factors impact in systematic ways the lay theories of suicide.

Key words: Alps-Adria region, attitudes, beliefs, causal attributions, cross-cultural comparisons, lay theories, migrant study, multilevel modelling, suicide

Survey on public attitudes towards people with mental disorders in FBiH

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Aims of the study were to (a) assess the attitudes and perception of the public and the media about mental disorders, (b) examine the relationship between knowledge about mental disorders with the characteristics of attitudes and distance towards people with mental disorders, (c) examine the frequency representation of topics related to mental disorders in printed and electronic media, and (d) examine how the media portray people with mental disorders. Sample for general population consisted of 1,200 persons in the FBiH. Analysis of media reports were based on one-month monitoring of print media and news portal actual for the area of the FBiH. The analysis includes 17 daily, weekly, and monthly newspapers and eight news portals.

Results from the general population showed that less than half of the respondents knew a person with a mental disorder. The highest percentage estimated that when people from their environment have a psychological problem, they seek help from family members (48.6%), from health professionals (33.0%), or a priest (8.7%). Among those who have not visited a health institution because of a mental disorder, 9.8% of them would not have sought such help. The greatest social distance was determined towards persons suffering from schizophrenia and treated drug addicts and the lowest towards persons suffering from anxiety and PTSD. People who have people with mental disorders in the neighboring area showed greater distance on the scale of the total social distance. Greater knowledge about mental health was associated with less social distance towards people with mental disorders.

Considering the results from the media, 246 units of content published in a one-month period of survey showed the popularity of certain key topics related to this issue (suicide, stress, sexual and reproductive health and disorders, mood disorders, cognitive functions/skills, positive psychology, addiction). Many published content was not written in accordance with the scientific facts, but "for the masses" in a fun tone. Overrepresentation of mental health issues was evident in reports in Black chronicle and News on suicide, homicide, aggression, and addiction. Concept of mental health is reduced to dominant negative reports of character located in the Black chronicle or marginal chronicles like Lifestyle, Magazine, and Interesting which publish scientific and popular activities on stress, sexual health, and cognitive abilities with the addition of quick tips on the recovery and preservation of mental health.

Key words: mental disorders, public attitudes, knowledge about mental disorders, media

Gender differences in general knowledge: Do residential status and the type of school matter?

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The goal of this study was to examine gender differences in general knowledge related to residential status and type of school. The study included 455 female and 362 male subjects of the third and fourth year of grammar ($N = 422$) and professional affiliations schools ($N = 396$) in the Republic of Croatia. They were from the capital city (Zagreb, $N = 440$) or smaller cities (less than 50,000 inhabitants, $N = 377$). The new 110 item version of the General Information Test (GIT-2012) was used. Cronbach alpha for male participants was .89, and .85 for female. In accordance with previous studies, the results of this study showed better performance and greater variance of male participants in total score on the GIT compared to female participants. Also, a statistically significant difference in the greater number of general information domains for men was obtained. High school students in Zagreb achieved better results than high school students from other cities, and students in grammar schools were more successful than vocational school students. Hierarchical regression analysis showed that the strongest determinant of general knowledge was type of school, followed by the place of education, while the weakest predictor was gender. This indicates that gender differences in general knowledge in Croatian high school students, although statistically significant, are not as important as the type of school and residential status. This result supports the gender similarities hypothesis (Hyde, 2005).

Key words: gender differences, general knowledge, general information, high school students, residential status

POSTER PRESENTATIONS

Resources, communities' psychological dynamics, conflicts, and development: The Sudanese case study

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A key requirement for any to escape from poverty, violence, conflicts, and hunger, striving for development in all its dimensions, is the access to productive resources, which are supposed to be fairly distributed and effectively managed. In developing countries, water, land, development, and community dynamics are tightly and importantly interlinked. The Sudan is endowed with enormous agricultural resources that together with the geographical location of the country in the vicinity of the large markets of the Arab World and the diversity of the Sudan's climate qualify Sudan as a promising supplier of agricultural commodities. Land and water ownership is the key to wealth and power in the country. Providing rural population an access to land and water in order to develop their territories remains a crucial element. Sudan's conflicts and communities' tensions have many causes, but at the root of each conflict are questions over the control and distribution of resources—land and water—whether exploited for agriculture, cattle, or subterranean resources as oil. These kind of conflicts has been defined *intractable conflicts*, because they usually remain unresolved for long periods of time. "These conflicts typically involve many parties and concern an intricate set of religious, cultural, historical, political, and economic issues. These matters are central to human social existence and typically resist any attempts at resolution. In fact, parties often refuse to negotiate or compromise with respect to such issues. As a result, each side views the rigid position of the other as a threat to its very existence. They may develop a mutual fear of each other and a profound desire to inflict as much physical and psychological harm on each other as possible".

Sudanese irrigated schemes are one of the most representative contexts in which psychological group dynamics, economic and political interests and conflicts can be identified. For various reasons, the experience of irrigated schemes in Sub-Saharan Africa during the last decades has been less positive than had been hoped. Causes can be identified in the fact that "water management and landholding aspects are deeply embedded in other social and psychological processes – politics, religion, history, customs – for water and land to be treated solely as resources to be allocated". "As conflict escalates, any tangible issues may become embedded within a larger set of values, beliefs, identities, and cultures. Disputes about land, money, or other resources may take on increased symbolic significance".

The interests of politicians, bureaucrats, and local elites, the mismanagement, and the lack of attention to the needs and uses of the territory and to psychological community dynamics have too often worsened rather than improved the development perspectives. "The territory belongs to the people who take care of it", but as relations among actors and territory are always changing, territorial identity always keeps changing. The Guneid sugarcane project is a Sudanese irrigated scheme with peculiar characteristics. Its most thorny aspects such as land and water ownership and management, psychological group dynamics, participation rules, internal tensions, representativeness, and relations among stakeholders, seem to follow, for certain aspects, different paths, that analysed and compared with classic schemes may envisage interesting scenarios in terms of balances of communities psychological dynamics and creation of real development opportunities.

Key words: resources, psychological dynamics, communities, conflicts, development, psychological processes

Psychosis and liminality

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The poster focuses on the system-oriented and anthropological approach of the symptomatology of certain young adults with psychosis. The two adjustable, compatible frames of interpretation allow for understanding and treating certain psychotic episodes in a broader perspective. The clinical consequences of such approach are longer-term periods free of medication and stigmatization. Our age and culture seems to lack those rites of initiation that would serve to signal the stages of growing, changing into adulthood. Handling and solving the identity or role diffusion phase of the Eriksonian psychosocial development theory is made more difficult in the absence of the rites. Psychotic states manifesting in this young age, often accompanied by severe loss of structure and disorganization may be taken analogous to the prescribed intermediary, liminal phase experiences in archaic cultures. Thus, they may be considered as a possible outcome of a developmental crisis, change. In these cases, the solution of the developmental crisis of turning into an adult man is hindered by a particular role relation in the family: all these patients have a *weak* father, who is emotionally or physically unapproachable. These fathers cannot be challenged to fight, or if they can, overcoming them is not triumphant. In the lack of a male role model, there are no counterparts to stand up against. The solid psychological grounds for formation or confrontation are missing. Consequently, the rivalry, the fight between men loses sense. From this point on, the developmental crisis is burdened by a state of an accidental crisis, which is solved by the suicide-equivalent psychosis.

Key words: psychosis, liminality, developmental crisis, young adult age

A step forward in the hope that detection of high-risk parenting attitudes on child abuse and neglect will be made easier: The Questionnaire on Parenting Attitudes

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The Questionnaire on Parenting Attitudes (Szülői Nevelési Attitűd Kérdőív; SZNA) is a self-reporting measure, which was developed to indicate high-risk parenting attitudes in the context of child abuse and neglect. The questionnaire includes 33 items and four subscales: Belief in the Effectiveness of Corporal Punishment, Reversing the Parent-Child Role, Expectation of Unconditional Filial Obedience, and Insensitivity Towards the Needs of the Child. During the development process of the SZNA we investigated 763 adult participants (171 male, 589 female, age group 18-60, mean age 38.8 years) who completed the questionnaire. We have found a good internal consistency for all of subscales (Cronbach's alpha coefficients ranging between .737-.887), as well as good test-retest reliability (r = .744–.841; Pearson's correlation). In this poster we demonstrate the development process, present the statistical indicators of the questionnaire, and display some findings connected to the features of the participants (such as gender, age, etc.).

Key words: parenting attitudes, SZNA Questionnaire, child abuse and neglect

Linguistic expression of body consciousness changes in subjects experiencing the rubber hand illusion

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The basic component of self-consciousness is the feeling of body ownership as related to body image and body scheme. Although in everyday life—apart from certain pathologies—body image and body scheme are integral mental representations, they can be easily divided or dilated. The standard examination method for this phenomenon is the rubber hand illusion (RHI) where the subject's own uncovered hand and an artificial hand, placed in front of her, are touched at the same time. This arrangement may make the subject feel that the artificial hand belongs to her. In this RHI study, 54 right-handed volunteers participated. The Anxiety Sensitivity Profile and the Borderline and Schizotypal Personality Scales were administered. After the RHI induction, body-related verbal expressions were explored in structured interviews about the subjects' experiences during RHI. According to the willingness to the RHI induction, two significantly different groups (N = 34) were formed: respondents (n = 17) and non-respondents (n = 17). Differences in verbal expressions of the two groups were explored by content analysis. The results showed that RHI respondents used a higher number of positive expressions to describe both their internal and external features. Subjects with increased ownership in connection with the rubber hand tended to report more frequently about negative external features. In the personality questionnaires, subjects with avoidance behavior used significantly more negative external features when describing themselves. In the borderline questionnaire, high scorers used positive expressions for external descriptions and negative expressions for internal descriptions. The preliminary findings suggest that the measured group differences in the RHI and the question-

naires appeared in linguistic expressions when the subjects referred to their external and internal features.

Key words: self-consciousness, rubber hand illusion, verbal expression, content analysis

Big Five traits predict sociosexual attitudes and behavior differently

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Sociosexuality refers to the individual difference in the willingness to engage in sexual activity outside of a committed relationship. Individuals with a more restricted sociosexuality are less willing to engage in casual sex, while unrestricted individuals are more willing to have casual sex. Considering sociosexuality as a unidimensional construct measured by Sociosexual Orientation Inventory (SOI), previous studies have shown the relationships between personality traits and sociosexuality. Higher SOI scores imply more unrestricted sociosexuality. Extraversion and neuroticism are generally related to higher SOI score, whereas agreeableness and consciousness are related to lower score. However, recent studies questioned unidimensionality of SOI and proposed sociosexual attitudes and behavior as separate dimensions. Therefore, the aim of this study was to further investigate relationship between personality traits and two SOI dimensions. Total of 218 men, aged between 18 and 64, filled out SOI and rated themselves on Croatian adjective markers of Big Five personality dimensions. Results show that extraversion positively predicts, whereas agreeableness and emotional stability negatively predict unidimensional SOI score. Extraversion positively and emotional stability negatively predict sociosexual behavior. However, agreeableness negatively predicts sociosexual attitudes. These results imply that two-dimensional SOI scoring reveal more precise relationships between sociosexuality and personality traits.

Key words: sociosexuality, Big Five, personality traits

A proposal for modification of Szitó's Learning Style Questionnaire

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Learning style is one of the factors affecting school performance. While learning style is difficult to define, we can hypothesize that a person's learning styles refer to individual's preferred ways of gathering and organising information. The most commonly used scale for measuring school performance in Hungary is developed by Imre Szitó. It has seven subscales (Auditory, Visual, Kinaesthetic, Silence, Social, Impulsive, Mechanic). The authors conducted a reliability study using a sample of 6-12th grade high school students ($N = 608$; Bernáth & Kollár, 2013). They found that from the original seven scales only the scale Silence proved reliable. The alpha coefficients calculated from the other six scales resulted in alpha indexes below .60. The identified factor structure of the items was inconsistent with the original scales. The results found indicated the necessity of redefining the inaccurate questions and partly modifying the factors of the scale. The modification was conducted in two steps: first, partly keeping the original 34 questions the authors expanded the scale to 78 items. Analyses of data of the revised questionnaire from a university student sample ($N = 308$) resulted in further corrections of the scale, this time using 66 questions on a sample of 5-12th grade high school students ($N = 896$). The revised questionnaire consists of 43 questions and eight factors. Six factors proved reliable, two factors reaching a Cronbach's alpha coefficient of .70. Consideringthe original scales, the questionnaire contains Silence and Social factors, partly with the original and partly the redefined items. The Auditory scale was separated into two different scales: the Speech Production and the Reception of Auditory Stimuli scales. The authors suggest Intuitive Learning and Reasonable Learning as new considerable factors in the questionnaire. The Visual scale was also separated into two different scales: Use of graphics and Text visualization scales. These two latter factors require further modification in order to improve their reliability level.

Key words: learning style, reliability, effective learning

The fight of emotion and cognition: The neural correlates of Machiavellians' emotion regulation

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The people who tend to manipulate and exploit others in order to achieve their personal gain are called Machiavellians or high-Mach people. According to Christie and Geis' so-called "cool-syndrome" theory, they are able to evaluate a situation without emotional processes, so they are devoid of emotional attachment. As a result of the Machiavellians' cold-headed strategy, they are able to understand other's experience from a cognitive perspective. However, Wastell and Booth's alternative model suggests that high-Mach people have difficulties in the ability to recognize and use emotions. According to this explanation Machiavellians' low emotional level and cognitive orientation are the result of the deficit of their emotional processing system. The aim

of our fMRI study is to examine the neural background of high-Mach persons' affective regulative processes. In this task we presented pictures from the International Affective Picture System (IAPS). One picture was presented once with a title and then the second time the same picture with a different keyword. The two versions induced different emotional atmospheres. We asked the participant to focus on the title seen on the screen and to imagine what happened in the pictures according to it.

Thirty-one healthy university students (15 males; mean age: 21.26 ± 2.19 yrs) were recruited and grouped into high-Mach and low-Mach groups on the basis of their scores on the Mach-IV scale. During the reappraisal task high-Machs showed higher activation in the areas of posterior cingulate cortex, parahippocampal gyrus, fusiform gyrus, thalamus, and middle temporal gyrus. In contrast low-Machs showed activation in caudate, precuneus, and middle temporal gyrus. We assumed that, compared to low-Machs, high-Mach persons are more sensitive to changes in the environment. They can successfully detect a given situation which leads them to a flexible adaptation.

Key words: Machiavellians, emotion regulation, fMRI

Linguistic markers of the level of integration of ayahuasca experiences

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Ayahuasca is a strong psychoactive brew originating from the Amazon Basin. It is cooked from two component plants and its active agents are β-carboline and tryptamine derivatives. In the Amazon Basin ayahuasca has been used as a central component to many religious, healing, and tribal rituals and is claimed to have psychotherapeutic benefits. The therapeutic effects however do not solely result from the ingestion of ayahuasca; the successful integration of the powerful altered state of consciousness experience induced by the brew is also a crucial requisite. During the last few decades ayahuasca has become popular in both laymen and scientific circles and has spread over Europe raising controversial questions. The presentation summarizes the linguistic markers that indicate the level of integration of ayahuasca experiences. Eleven European participants were followed for the period of one year, during which they participated in three to five ayahuasca rituals and a follow-up period of 6 months. Follow-up reports were gathered every six to eight weeks in a group setting and completed by individual closing interviews. Independent clinical psychologists distinguished the participants who integrated the experienced by the end of the one year period from those who failed to do so. Follow-up reports were analyzed by narrative methodology to reveal the differences in the use of language among those who integrated the experiences and those who had not. The overall aim of the analysis is to discover psychological factors that support the integration of ayahuasca experiences allowing therapists to better understand the process of integration and develop tools for its facilitation.

Key words: ayahuasca, psychedelics, integration, narrative psychology, linguistic markers

Women are more religious than men: Is this true?

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Many researchers who conducted studies in psychology of religiosity found that women are more religious than men. Aim of our study was to examine this on a sample of Catholic population. Two hundred ninety-six individuals (67.57% women, 32.43% men) between 16 and 50 age ($M = 25.40$, $SD = 6.99$) participated in the study. All of the participants completed on-line Religiosity questionnaire (Ljubotina, 2002) which measures three dimensions: dimension of spirituality, ritual dimension of religiosity, and influence of religiosity on behaviour dimension. Participants also completed a sociodemografic questionnaire which included questions about gender, age, and place where they live. Results showed statistically significant difference between men and women in ritual dimension of religiosity ($t = 2.04$, $p < .05$) and in influence of religiosity on behaviour dimension ($t = 2.32$, $p < .05$), with women scoring higher on both dimensions. We were also interested in the difference between men and women who live in small and big places. We found a statistically significant difference: women who live in smaller places were more religious than those who live in bigger places in ritual dimension of religiosity ($t = 2.18$, $p < .05$). There wasn't a statistically significant difference in any of three dimensions of religiosity between men who live in small and big places. This study confirmed the results of some previous research and suggests that there are more factors than gender that can influence an individual's religiosity. Further investigation in this field of psychology should consider people of different religions and age.

Key words: religiosity, women, man, place of living

Extreme strategies in social dilemmas: Free rider and altruist group members in public goods game

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While former studies have revealed the typical behavioural patterns and strategies in social dilemma situations, they paid relatively little attention to the underlying personality traits and the constraining situational factors. The present study is aimed at exploring the effects of the presence of non-cooperative (free rider) and unconditionally cooperative (altruist) group members on the contributions and payoffs of the other group members. Participants ($N = 150$) made decisions in two social dilemma situations, in the traditional and in a competitive version of the public goods game (PGG). Participants were classified free riders if their contribution to the public good was at most 20% of the maximum amount, and were classified altruists if they contributed at least 80% of the provided sum. Personality factors of free riders and altruists (temperament and character factors, Machiavellianism), their contributions and payoffs, and the effect of their presence on group-level cooperation were analysed. While the number of free riders was fairly constant in the two game settings, the number of altruists was strongly context-dependent: this strategy appeared more prevalent in the traditional PGG. Significant personality differences were found between people who played as free riders and as altruists in the traditional version of PGG. Free rider members were financially more successful in both settings. In groups with at least one free rider member, the average contribution of other members was significantly lower in both traditional and competitive settings, but this effect was stronger in the traditional PGG situation. The presence of altruists promoted an increase in the average contributions only in the classic PGG setting.

Key words: social dilemma, public goods game, altruism, free riding

Relationship between mother's perceptions formed about infants, attachment style, and early feeding habits

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One of the most significant questions in terms of healthy beginning of life is breastfeeding. According to several authors the breastfeeding determines the style of attachment in childhood, development of child-parent relationship, and maternal responsiveness (Derbyshire, 2008; Feldman et al., 1999; Gribble, 2006; Schneiderné, 2012). So the society believes that the breastfeeding is an indicator of the "good motherhood". We wanted to explore the relationships between mother attachment style, early feeding habits, and mothers' perceptions about their infants. We used questionnaires to examine the adult attachment style (Attachment Style Questionnaire, Feeney & Noller, 1994; Hámori, 2012) and to assess mothers' models of their infants (Mother's Ob-

ject Relation Scale, Oates & Gervai, 2006; Danis, 2007). Structured interviews were used to explore maternal feeding habits (Csabai, 2012). Our results show that there is no difference between breastfeeding and bottle-feeding mothers in mothers' models of their infants ($z = -1.49$, $p = .14$) and adult attachment style. The quality of maternal attachment, maternal perceptions, and feeding habits do not show significant correlations. The adult attachment quality and the maternal feeding habits should be the subject of deeper exploration in further research.

Key words: adult attachment style, maternal perception, early feeding

Sound-induced proprioceptive changes in the invisible hand illusion

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The rubber hand illusion, and its variant, the invisible hand illusion (IHI) is an experimental model for investigating the multisensory aspects of bodily self-awareness. In this study we tested whether irrelevant auditory signals can be used as conditioned stimuli to enhance the intensity of the IHI. Twenty-six healthy volunteers (12 females, 14 males, mean age: 19.5 ± 0.8) were recruited among university students. The IHI was elicited in the presence of metronome beats and in silence both before and after a conditioning process. Each subject's hand proprioception and illusory experience were measured in all conditions. We found no change in the subjective ratings of illusion across study conditions, but hand proprioception drifted towards the body-midline in sound conditions. Proprioceptive updating can be influenced by rhythmic auditory stimuli. Irrelevant auditory cues presented in synchrony with rhythmic visuotactile stimuli are able to effectively facilitate the integration of visual and tactile signals.

Key words: multimodal integration, rubber hand illusion, invisible hand illusion, conditioning, irrelevant auditory cues, proprioception

Is luminance spatially coded: Evidence of a spatial-luminance association

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The association between number magnitude and the space of response execution was conclusively demonstrated with the SNARC effect (Spatial Numerical Association of Response Codes). It consists in faster left key-press responses to small numbers and faster right key-press responses to large numbers. In the present study we investigated whether a spatial-luminance association, with similar features to the SNARC effect, exists. For this purpose, we ran two distinct experiments. In Experiment 1 (brightness discrimination task) the association between response side and the luminance of chromatic stimuli was tested directly. In Experiment 2 (hue discrimination task) the association was tested indirectly. Results showed a left key-press advantage in processing lower luminance and a right key-press advantage in processing higher luminance. This effect was demonstrated in both direct and indirect tasks. These findings suggest that luminance is spatially coded, similarly to other types of magnitudes (e.g., numbers, physical size, pitch height). The present study provides empirical evidence supporting the ATOM model proposed by Walsh (2003), revealing that spatial representation might be the most suitable form for representing various types of magnitudes.

Key words: SNARC, luminance, hue, spatial response compatibility

Work stress factors as predictors of teacher burnout dimensions

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Teacher burnout manifests itself in three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. Research evidence shows that teacher burnout typically starts with the development of emotional exhaustion, which leads to the development of depersonalization. The third burnout dimension, personal accomplishment, is determined directly by emotional exhaustion and indirectly through depersonalization. Burnout is believed to be caused by prolonged exposure to work stress factors, such as workload, time pressures, pupils' attitudes and behavior, teaching pupils who lack motivation, lack of support from management and co-workers, poor working environment, etc. The study examined the relationship between different work stress factors as perceived by the teacher and the three dimensions of teacher burnout. The purpose was to find out which of the investigated stress factors could be considered as predictors of certain teacher burnout dimension(s). The participants were 230 schoolteachers from fourteen Slovenian nine-year primary schools. One half of the participants taught in lower grades (Grades 1 to 5 and/or after school program), and the other half taught in higher grades (Grades 6 to 9). The Teacher Stress Scale (Depolli Steiner, 2010)

and the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) were applied. The results of the study indicate that teachers' work stress factors are associated with burnout dimensions. All seven investigated stress factors were positively and significantly correlated to emotional exhaustion, four stress factors were positively and significantly correlated to depersonalization, and one stress factor was negatively and significantly correlated to personal accomplishment. The significant correlations were either low or medium. Further analyses confirmed some of the investigated stress factors as significant predictors of teacher burnout dimensions. The variance accounted for by stress factors was 29% for emotional exhaustion, 10% for depersonalization and 8% for personal accomplishment. However, the predictors for the three burnout dimensions were not the same. It seems that emotional exhaustion and depersonalization are fuelled by exposure to stress factors workload, pupils' behavior and motivation, and parents' attitude and behavior, whilst reduced personal accomplishment seem to stem from exposure to stress factors school system, management's attitude and support, and ecological conditions and school equipment.

Key words: teacher burnout, teacher work stress factors, primary schoolteachers

Infidelity and jealousy in dating violence

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The aim of the study was to examine gender differences in the attitudes towards partner emotional or sexual infidelity, as well as to determine predictive contribution of jealousy and history of abusive behavior to dating violence in adolescent relationship. The study included 122 university students of both gender. The Revised Conflict Tactics Scales (CTS2) was used to examine committing and exposure to dating violence. The sensitivity to partner sexual and emotional infidelity was examined by modified Buss method, which measures the intensity of jealousy. Obtained results showed that young men were more prone to sexually and threatening abuse of their partner compared to girls. As regards to exposure, men were more often inclined to emotional/verbal, sexual, and physical abuse, and threatening behavior by their female partner. There were no gender differences in the sensitivity to partner infidelity. Aggression perpetration and exposure to aggressive behavior was in strong relationship with intensity of jealousy. Strong relationship was also found between perpetration and victimization for all aggressive behavior across genders. The sensitivity to sexual infidelity for boys was a significant predictor

of emotional and verbal abuse and relational perpetration (β = 0.51) of their partners and exposure to relational abuse (β = 0.56). The sensitivity of girls to hypothetical emotional infidelity was significant predictor of relational abuse (β = 0.26) and exposure to relational abuse (β = 0.47). History of exposure to different form of dating violence was statistically significant predictor for perpetration and exposure to aggressive behavior for girls and boys. These results demonstrate that the use of abusive behaviors in adolescent dating relationships is prevalent. Sex differences were evident in the perpetration and exposure to dating violence. Jealousy is statistically significant predictor for exposure and preparation of dating violence.

Key words: jealousy, dating violence, gender differences

Adolescents' attachment tendencies in light of parental divorce

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Family attachment tendencies have profound effect on the events in adolescence. In ideal situation a parent is a secure base support in the most important developmental tasks of adolescence: emotional detachment, turning toward peers, and self-discovery (Allen et al., 2003). Transmission of attachment tendencies from parents to peers is complicated in case of parental conflicts, especially in case of divorce. However, there are limited data about which aspects of adolescents' attachment working models are affected by parental divorce, and how early experiences are represented. The aim of our study was to examine how attachment tendencies and family relations are represented by youngsters between 16 and 18 (*n* = 91) in case of parental divorce. The following instruments were used (a) general questionnaire about living conditions and family relations (Dunai, 2013); (b) The Bird's Nest Drawing and its multidimensional analysis (Hámori et al., 2011), a projective assessment to evoke representations of attachment; (c) Attachment Style Questionnaire (ASQ, Feeney et al., 1994; Hámori et al., 2010), a self-report questionnaire designed to measure young adults' attachment style; (d) Parental Bonding Instrument (H-PBI, Tóth & Gervai; 1999) to measure the parental discipline styles as perceived by the child. The testing procedure was specially developed for the Y–generation with advanced computer and interface skills. Another new feature was the additional questioning of the Attachment Style Questionnaire developed by us. According to our results, the network of mother–father–children relations was fully represented in the control group (parents live together). In contrast to this, youngsters whose parents had been separated represented the mother-and-child and father-and-child relations as separate relational units. In addition, parents' relationships were perceived by the youngsters as being dysfunctional from the point of view of the family system. The father's role as someone who provides security proved to be a central wishful fantasy in the stories of the projective tests. To conclude, youngsters who had witnessed the process of separation of their parents are much more occupied by their parents' relationship even in adolescence. The adolescence detachment process and the transmission of attachment to peers are supposedly delayed, compared to youngsters living in intact families. The proportion of different attachment styles were the same in the two groups, suggesting there were no differences between young people with parents living together and parents having been separated. However, the correlation patterns highlighted special patterns of connections among the different representational aspects of attachment relations. These patterns differentiated significantly between the two groups. In addition, the qualitative analysis of the stories of the Bird's Nest Drawings pointed to individual patterns of experiencing attachment relations.

Key words: adolescence, attachment tendencies, parental divorce, Bird's Nest Drawing, ASQ, PBI

The behavior of children with ADHD in light of life history episodes

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Recently more and more studies are dealing with the disorder of ADHD. One reason for this can be the increasing number of children diagnosed with this kind of disorder. The main symptoms of ADHD are the lack of attention, concentration disorder, and behavioral problems that are also generating difficulties in various situations. Given these circumstances children with ADHD have to face many other obstacles such as fulfilling school requirements or integrating into peer groups. As another consequence, positive self-image and self-evaluation may be distorted in children with ADHD. Last but not least, understanding and accepting these children is difficult for their parents as well as their teachers. Therefore, it is important to clarify this complex and increasingly common problem by applying a multi-faceted approach. The aim of our research is to explore the self-image of children with ADHD, and confirm the hypothesis that it is difficult for these children to see their behavioral problems when they have to judge their own social situation or behavior through self-administered questionnaires. Contrary to this I assume that the difficulties in social situations are more manifest in the children's biographical episodes. Most of our results were in accordance with these assumptions.

Key words: ADHD, narrative psychology, behavior of children

The development of intercultural competence in international university environment

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As intercultural competence will constitute an essential part of knowledge of the present and future generations, it is important to gain empiric experience of its evolution and development. The goal of our research is to conduct a long-term study of the socio-cultural adaptation of foreign medical students at the University of Pécs Medical School, as well as of the development of their intercultural competences. Since the research on the development of intercultural competence requires complex research methods, we have applied several methods simultaneously for our long-term follow-up research. Firstly, we have used closed-ended questions in our self-developed questionnaires distributed altogether six times in the given cohort. Also, the medical students of Pécs were canvassed by semi-structured personal and group interviews regarding their integration and the development of their intercultural sensitivity. Secondly, we have gained additional clarifying information due to the participant observant status of some members of our research group. It has been established from the findings of the research that started in 2009, that the foreign students arriving to Hungary plan a limited residence in the country, and their primary motivating factor is to begin their medical university studies. Although a remarkable number of them possess previous foreign residence experience, however, due to the lack of preparation and the limited motivation to learn about the target culture, their smooth adaptation could be restrained. It is also apparent that the students coming for a limited period focussing primarily on their studies will in larger numbers move over the ethnocentric phase of development to the ethnorelative phase. However, only the students studying in Hungary for the total length of their studies will more characteristically reach—after the acceptance—the adaptation and perhaps the integration stages. Based on the long-term research lasting for five years now, we can establish that the elements of the motivation system and the period of the foreign residence significantly influence the circumstances of the evolution and development of intercultural competences. Nevertheless, the intercultural experience gained during a determined period of residence could also contribute to the further development of intercultural sensitivity.

Key words: study abroad, motivation, intercultural competences

Intercultural competence as a necessary element of knowledge in health care

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In our world of globalization, intercultural competence makes an increasingly indispensable part of human knowledge. Due to the labour mobility in health care, foreign medical professionals are similarly affected by the importance of intercultural competences as the professionals treating migrant patients. In our current study we are presenting an innovative initial of a Westphalian university teaching hospital where it is important to have the opportunity to gain the intercultural competence for both the patients to be treated and for the medical professionals coming from abroad. In the regional hospital of the German university town, which has a more than 10% immigrant background, a labour recruiting program was implemented in order to relieve doctor shortage in 2012. The program aimed to reveal all the aspects that could facilitate the soft landing of foreign medical professionals, therefore launching intercultural trainings was also suggested. Based on the observations of the consultations and the group interviews, the ad hoc committee advised to design intercultural trainings for the following groups: health care workers arriving from abroad, on the part of the host culture medical professionals working with immigrant colleagues and treating partly immigrant patient groups, and the volunteers who helped with integration. Following the strategic decision on the part of the leadership of the hospital, according to the proposition, we started to design intercultural trainings for the three target groups. In the frame of the detailed program, the leaders of each department made it possible for the migrant health care workers to participate in an altogether one-and-a-half-day training on two occasions during their working hours. Based on the feedback (anonymous questionnaires and interviews) of the three trainings of the trial phase, taking place between June-December 2013, it can be observed that gaining the intercultural competence as well as having the opportunity of reflection were rated high by the participants, and they would welcome the opportunity to meet regularly during their integration process. The observations of the trainings realized so far following an almost one-year planning phase show that despite the initiative and positive attitude, the overload of the hospital and the employees makes it hard for them to participate in the thoroughly designed and negotiated trainings that were offered. However, the decision makers and the invited participants totally agree on their necessity and importance. Following the evaluation of the positive experience of the trial phase, the members of the project envisage the continuation of the program.

Key words: mobility, health care, intercultural communication

Experiencing motherhood with children suffering from childhood cancer

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The tumor disease of a child results in a specific life situation for a family where the activity of the family is broken and the regular family structure splits up. Parents losing balance is expressed in their behavior towards the suffering child also in a critical situation. The role of the parents is important in the treatment of their child. The most important person for the child is the parent, they can strengthen the feeling that the child wants to get better. Lethal diseases of children may cast doubts on their mother's conception about her own parental efficacy. Narratives show the organisation of an individual's specific meanings. We hypothesize that because of the emotional discrepancy these mothers will report about less emotion when they are talking about their children than mothers of healthy children. Due to coping with the disease, their coping strategies will also differ from those of mothers living with healthy children. We have recorded anamnesis, administered the Psychological Immune Competence Questionnaire (PIK) that measures coping skills as well as the Positive and Negative Affect Schedule (PANAS) that focuses on changes in the mother's state. In addition we used narrative life history interview – the questions of which are related to difficult life situations, and the way the coped or did not cope with them, and we also used survey procedure. After that, we had longitudinal examination with the mother during the treatment of the child by use of survey procedure. In light of the results and considering the limitations of the sample, we claim that mothers of children with cancer tell about less emotion in the anamnesis of their children, than mothers in the control group. In addition, negative emotions appear more likely in their reports and they judge the developmental history of their children more negatively than the control group. We suppose that psychodynamically the disease of the child means a narcistic injury for the mother.

Key words: childhood cancer, mother's state, narratives, anamnesis, coping

Empathy for pain in relation to interpersonal reactivity and trait impulsivity

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Since human empathy contains simultaneously cognitive and emotional components, empathizing with another person refers to the situation that is perceived and also to the feelings that the situation evokes. In relation to the effects of cognitive components, there is, for example, evidence that attention mediates how we can take the perspective of other people. Hence, it is plausible to predict that personality traits related to certain cognitive functions, such as attentional impulsivity, might also influence the perception of others' pain. We tested this prediction by an experiment in which participants ($N = 39$) were shown pictures of hands and feet in everyday painful situations using two distinct perspectives: imagining being in the patient place (*self*) or imagining being a witness of the painful situation happening with somebody else (*other*). Participants had to rate the level of the pain intensity, and the aversivity of the painful situation, and indicate how easily they could imagine the painful situations in the different perspectives. The following questionnaires were used to measure the individual personality trait differences: Barratt Impulsiveness Scale (BIS-11) and the Interpersonal Reactivity Index (IRI). Attentional and motoric impulsivity was found to covary significantly with the difference between the two perspective conditions: participants with lower impulsivity indicated lower pain intensity and unpleasantness in the self condition compared to the other condition. In addition, two subscales of IRI (Perspective Taking and Fantasy) showed significant association with the rating perspective: higher empathy scores were associated with higher ratings in the other condition. In sum, present results support predictions and suggest that pain empathy can be influenced by cognitive and emotional processes on the level of personality traits.

Key words: empathy, pain, impulsivity, perspective taking

Gender and stress in police occupation

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The aim of this study was to examine gender differences in relation to police stress. Gender differences were analyzed using following variables: police stress, life stress, burnout, and social support. The respondent sample comprised of 80.1% ($n = 145$) males and 19.9% ($n = 36$) females, with an average age of 31.62 ($s = 5.26$). Following instruments were used: Organizational Police Stress Questionnaire (PSQ-Org, McCreary & Thompson, 2006), Operational Police Stress Questionnaire (PSQ-Op, McCreary & Thompson, 2006), Social Support Scale (Caplan et al., 1975), and Maslach Burnout Inventory (Maslach & Jackson, 1981). Life stress was measured with scale constructed by authors of his research. Participants gave answers on 5-point Likert scale regarding their overall life stress level. General findings suggest that police officers are under higher organizational than operational stress ($t = 3.905$, *p*

< .05). They are under moderate life stress ($M = 2.93$, $s = 0.872$). Regarding burnout, results show that the highest percent of respondents show symptoms of depersonalization (86.9%) and feelings of reduced personal accomplishment (60.4%), followed by moderate level of emotional exhaustion (46.7%). About social support, when under stress, police officers receive greater support from their colleagues ($M = 14.46$, $s = 3.10$) compared with support received from family ($M = 11.46$, $s = 3.08$) and superiors ($M = 10.58$, $s = 3.36$). Although women showed higher level of symptoms on all three burnout scales, no statistically significant gender differences were found. Although we expected to find gender differences, results suggest that in relation to stress in police occupation, female and male police officers experience stress in similar way.

Key words: police officers, gender, stress, burnout, social support

Moderator and mediator effects of personality on relationship between stress and health

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The aim of this study was to determine moderator and mediator effects of personality traits on relationship between stress and health. The respondent sample comprised of 177 police officers (140 males, 37 females) with an average age of 30.86 ($SD = 5.41$). Following instruments were used: Holmes and Rahe Stress Scale (Holmes & Rahe, 1967), Eysenck Personality Questionnaire (EPQ R/S, Eysenck, 1991), and 36 Health Survey (Ware et. al, 2000). Police stress was measured with scale constructed for the purpose of this research, on which participants gave answers on 5-point Likert scale regarding stressors in police. We expect that personality will moderate and mediate the stress-health relationship. That is, we assume that participants with low extraversion and high psychoticism and neuroticism scores will have worse health outcomes compared to respondents with high extraversion and low psychoticism and neuroticism scores and that stress-health relationship will be weaker when personality is controlled for. Results showed that personality has a weak mediator effect on stress-health relationship only regarding life stress, while no moderator effect was found. The first regression showed that life stress had an unique effect on health ($B = -0.02$, $p < .05$). In the third step neuroticism (mediator) was negatively associated with health (controlling life stress; $B = -0.549$, $p < .05$). A hierarchical regression analysis using health as the outcome variable and stress as predictor in the first and neuroticism as predictor in the second step showed that when neuroticism was controlled for, predictability was reduced somewhat but was still significant for stress ($B = -0.084$, $p < .05$).

The study suggests that neuroticism contributes directly to explaining the variance in health while stress might contribute directly to explaining the variance in health and indirectly by increasing neuroticism.

Key words: personality, stress, health, mediator, moderator

Patterns of attachment in clinical disorders of adolescence and adulthood

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Studies on the relational aspects of various clinical disorders in adolescence and adulthood have increased significantly in the past few decades. Clinical results of attachment research have pointed out that the adaptive organizations of the attachment system have been affected adversely more or less in almost all disorders. New models of developmental psychopathology stress the importance of the dimensional approach which provides a better framework to our understanding of how the maladaptive patterns of attachment system develop in certain clinical disorders (Fossati et al., 2003; Hámori et al., 2011; Nagy, 2005). Aims of our study were to (a) assess which aspects and layers of different attachment styles are affected in certain clinical disorders, (b) explore characteristic patterns of attachment styles based on dimensional analysis, and (c) identify specific attachment related thought contents that might characterize a certain clinical disorder. Based on our previous and current research on the characteristics of attachment in clinical disorders (Hámori et al., 2011, 2012) we analysed our database of adolescent and adult participants ($n = 135$) with depressive and anxiety disorders, borderline personality disorder, drug addiction, and eating disorders. Clinical groups were compared to a control group ($n = 145$) matched in age and gender. Data were collected as part of the Attachment Research Workshop of the Pázmány Péter Catholic University between 2009 and 2013. Different aspects of attachment patterns were measured by a set of attachment questionnaires (ASQ, Feeney et al., 1994, Hámori et al., 2011; ECR-R, Nagy, 2005; YSQ, Unoka et al., 2004; H-PBI, Tóth et al., 1999) and the projective Bird's Nest Drawing Test (BND, Hámori et al., 2011). Multivariate dimensional analysis was performed to explore the various aspects and layers of attachment patterns of different clinical groups. Qualitative and quantitative analysis of the stories of the BND were conducted to identify specific attachment related thought contents. Our results have demonstrated the following: (a) disorder-specific patterns of attachment characterize the different clinical disorders, (b) specific patterns can be identified only by applying multidi-

mensional analysis that includes the combinations of variables of different attachment methods, and (c) quantitative and qualitative analyses of the BND have identified (i) significant between-group differences in experiencing the security of the environment, the availability of the attachment figures, and the perceived family system and (ii) provided information about clinical disorder-specific attachment related thought contents, including the perception of the role of significant attachment figures. Multidimensional analysis of attachment related thoughts and experiences assessed by various methods can identify specific patterns of attachment that relate to a certain clinical disorder. The evaluation of these patterns makes it possible to assess the individual aspects and contents of the attachment organization and how it relates to the person's clinical disorder.

Key words: clinical disorders, adolescence, adulthood, attachment patterns, Bird's Nest Drawing, attachment questionnaires, multidimensional analysis

Methodological challenges in measuring attachment: Laymen's interpretations of attachment

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The number of methods for measuring adult attachment has significantly increased over the last decades. Questionnaires (e.g., ASQ, RS, ECR, PBI), in-depth interviews (e.g., AAI) and projective methods (e.g., picture tests for measuring attachment), due to their different theoretical approach, focus on various aspects of attachment styles and patterns (Collins et al., 2013; Hámori, 2013). This methodological diversity poses a challenge to attachment research, since Bowlby's original concept of attachment is often being distorted or misinterpreted (van Ijzendoorn et al., 2007). However, conceptual diversity is only one reason behind misunderstandings. Another reason would be the inconsistency of participants' interpretations of attachment. Currently there are few studies examining what attachment means for laymen (Karantzas, 2012). Goals of our study were to (a) assess how participating laymen interpret the concept of attachment and what kind of knowledge, thoughts, and experiences are associated with it, and (b) determine to which extent laymen's unique interpretations of attachment influence the completion of already validated questionnaires and projective tests. Almost 100 persons (age: 14-62 years) participated in the study. The data collection was conducted as part of the Attachment workshop of the Pázmány Péter Catholic University, with participation of the students attending the course. Materials used were associations with the concept of attachment; in-depth interview about attachment; completion and discussion of the ASQ, ECR, PBI questionnaires; and Picture Attachment Test by Molnár

(2009). Based on qualitative and quantitative data analysis the results were: (a) laymen's general concepts of attachment do contain common elements, although (b) individual experiences result in different categories of interpretations, (c) the interpretation of questionnaire items is determined by age and experiences about attachment, and (d) in-depth interviews and projective picture test data provide information about individual differences in constructing the concept of attachment. Attachment studies have to consider (a) on which aspect of attachment patterns the given method focuses, (b) what the concept of attachment means for participants and (c) in which context and under which circumstances the given method is used.

Key words: adult attachment, laymen's interpretation of attachment, associations, in-depth interview, questionnaires, projective picture test

To go or not to go? Willingness to migrate in the context of personality and time perspective

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Present study intends to reveal the relationship between the migration propensity and time perspective of young Hungarian people. Two hundred and eighty individuals (average age 31.57, $SD = 7.1$) completed a questionnaire about migration and Zimbardo Time Perspective Inventory (ZTPI). Our results suggest that there is relationship between migration, migration propensity, and the individual's time perspective. Present study compared groups who had already migrated with those who are considering migration and those who don't plan migration at all. Results show that the individual's migration propensity with past negative time perspective is higher than average, while with past positive time perspective willingness to migrate is lower. Present research explores relationships between economic conditions, material possessions, job satisfaction, and migration. Using factor analysis migration explanatory (economic, social, cultural) variables were created. Results show that these variables can be also connected to different time perspectives.

Key words: migration, time perspective, economic conditions

Line bisection dependent proprioceptive drift and ownership scores in rubber hand illusion

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The rubber hand illusion (RHI) is a common research tool for examining the body image – body scheme dissociation in healthy and non-healthy persons. It is unclear however, what kind of correlation there is among several components of RHI (ownership, proprioceptive drift) and line bisection error. The bisection error depends on the laterality of attention allocation for hemiplace where the rubber hand and real hand have been located. To study the attentional strategy regarding the peripersonal space, we used line bisection tests, to control the attention processes. There were 51 participants (22 female and 29 male) recruited for study, all right handed. To determine the exact response to RHI induction, three groups were established. The grouping was ordered based on the proprioceptive drift and ownership values. In the pretest condition, line bisection error drifted toward left side of peripersonal space. In the later stages of examinatione when RHI was induced the bisection error drifted toward left in participant with RHI non-responsible persons and, in contrast, in participants with RHI respondency the line bisection error drifted toward right side of peripersonal space. The results may be interpreted in the frame of brain hemispheric laterality and attention allocation concept.

Key words: attention allocation, line bisection, ownership, proprioceptive drift, rubber hand illusion

Automatization of the linguistic category model

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The linguistic category model (LCM) is one of the most current content analytic coding systems in social psychology. It has been designed to assess the level of abstractness of a described interpersonal or intergroup event. LCM deals with four verb categories and one adjective category. The verb categories from the least abstract to the most abstract are as follows: descriptive action verbs, interpretative action verbs, state action verbs, and state verbs (Semin & Fiedler, 1988). The level of abstractness serves as a valuable information source concerning the narrator's psychological processes and representations (Coenen et al., 2006). It can also signify intergroup biases, such as the well-known linguistic intergroup bias (Maass, 1999). Our goal was to create an automated analytical tool which can locate the above mentioned categories of the LCM in written texts. In order to achieve this, a pipeline was developed gathering the syntactic information of the texts with the aid of coreNLP (Finkel et al., 2005; Toutanova & Manning, 2000). This information is then loaded to a linguistic analytical toolkit called NooJ (Silberztein, 2004), where an algorithm locates the verbs belonging to the above mentioned LCM in the text(s). The output allows for a project-specific detailed post-analysis of the data such as organizing results into ingroup and outgroup categories and taking into consideration whether the subject is a living entity or not. We present the reliability of our algorithm by the analysis of football team supporters' forum comments on their own team and adversary teams.

Key words: language and communication, content analysis, intergroup conflict

Childhood maltreatment and Machiavellianism: Different pathways for men and women

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Machiavellianism as a part of the dark triad has been proposed to represent a fast life strategy. Several studies confirmed this hypothesis, linking Machiavellianism to e.g., impulsivity, lack of inhibition, future discounting, and preference for short-term romantic relationships. Nevertheless, developmental origins have not been tested yet. Aim of our study was to test whether retrospective recollections of childhood maltreatment were connected to Machiavellianism. Participants (N = 248; 141 females; 32.35 ± 5.44 years of age) completed the Childhood Abuse and Trauma Scale (CATS) and the Mach-IV Scale. Because of substantial sex differences, further statistical analyses were done separately for men and women. Results showed that higher CATS total score predicted higher level of Machiavellianism for both men and women. In analyzing the predictive power of CATS subscales, different results emerged for men and women. While harsh punishment and sexual abuse predicted higher level of Machiavellianism for men, emotional neglect predicted Machiavellian attitudes for women. Results are discussed from an evolutionary perspective of socialization.

Key words: Machiavellianism, childhood maltreatment, evolutionary model of socialization, sex differences

Translation and adaptation of Short Test of Music Preferences STOMP in Slovenia

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Musical taste starts forming in the adolescence. It is estimated that lifelong musical taste is developed around

or even before the age of 23. Different factors contribute to development of musical taste and musical preferences, from characteristics of music, peer influence, personality characteristic, emotional state, cognitive skills, sensation seeking, and experiences during music listening. Rentfrow and Gosling (2003) designed the Short Test of Music Preferences STOMP that includes 14 genres which are assessed on 7-point scale (7 meaning *strongly like* a certain genre and 1 meaning *strongly disliking it*) and can be grouped in four dimensions: Reflective & Complex (Blues, Jazz, Folk, Classical), Intensive & Rebellious (Alternative, Rock, Heavy Metal), Upbeat & Conventional (Country, Pop, Religious, Soundtrack/theme songs), and Energetic & Rhythmic (Dance/electronica, Rap/hip-hop, Soul/funk). Aim of this study was to translate and adapt STOMP and to investigate if the underlying dimensions, derived from Slovenian sample, differ from dimensions based on original data by Rentfrow and Gosling. Five hundred and eighty-one people participated in the study, carried out in 2011 (349 females and 232 males; average age = 23.2). Participants filled in the translated and adapted STOMP (with 15 genres - Slovenian folk music was added due to cultural differences) among other questionnaires that were not part of this specific study. Principle component analysis revealed similar dimensions of music preferences with some differences. Intern consistency indexes are also presented. PCA revealed following dimensions: Reflective & Complex (Blues, Jazz, Soul/funk, and Classical; α = .76), Intensive & Rebellious (Alternative, Rock, and Heavy Metal; α = .74), Upbeat & Conventional (Slovenian folk music, Country, Religious, Folk, and Soundtrack/theme songs; α = .60), Energetic & Rhythmic (Rap/hip-hop, Dance/electronica, and Pop; α = .65). Translated and adapted STOMP can serve different researchers in the fields of psychology of music, cognitive psychology, and music therapy.

Key words: music, music preferences, STOMP

Who created IQ as a whole number?

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William Stern's lecture at the fifth Congress of Psychology held in Berlin in April 1912 is noted in the history of science in general and psychology in particular for two details. The first is Stern's suggested definition of intelligence, which was later very well accepted, while the second detail is more widely known. Stern suggested that the relationship between mental (*Mental age - Intelligenzalter* – "IA.") and chronological age (*Chronological - Lebensalter* – "LA.") should be relativized, with the result being called the intelligence quotient (Stern, 1912). The original formula was: "IQ = IA. / LA." (Stern, 1912, p. 28). A hundred or so years later, *IQ*, as Stern's epochal contribution to the understanding of

intelligence, is systematically described in a distorted way. Even the highest authorities in this field claim that Stern's formula included the multiplication of the result by 100 in order to avoid decimal points. It is sufficient to consult the chapter in the *Cambridge Handbook of Intelligence* (Sternberg & Kaufman, 2011), written by Urbina (p. 20-38) or the *APA Dictionary of Psychology* (VanenBos, 2007). However, if American authors write in such a way, it is surprising that the German ones haven't checked this claim (e.g., Preckel & Bruell, 2008; Rost, 2009). The important point is that the original intelligence quotient was calculated as a decimal number. There was no factor "100" which would avoid this. If we analyze not only the original lecture but also the publications following Stern's proposal, we can confirm that in the initial decades following Stern's idea, the intelligence quotient of European authors was a decimal value. Examples of this are Bobbertag's processing of Binet-Simons's test which was published in 1913 and subsequently in 1920, or, for example, the Croatian adaptation of Ballard's test, published as the Ballard-Ostojčić-Bujas series (B.O.B. series; Bujas & Ostojčić, 1942). I am of the opinion that IQ as a whole number was created by Lewis Terman, as he has, according to his assistant Florence Goodenough, stated the following: "He (Terman) suggested that in writing the results, the initial letters (IQ) should be used without the abbreviation sign and that the decimal points should be omitted. Thus, instead of recording that John Smith was found to have an IQ of 1.25, one would express it more compactly as an IQ of 125" (Goodenough, 1949, p. 162).

Key words: history of psychology, IQ, W. Stern, L. M. Terman, F. Goodenough

Croatian translation and validation of three different autobiographical memory questionnaires

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Autobiographical memory is the chronicle of our lives. We store our personal experiences in it and we consult it whenever we want to remember something from our personal past. The aim of this study is to test psychometric properties of the Croatian translation of three autobiographical memory questionnaires, which are the first such instruments in Croatian language. A Survey of Autobiographical Memory (SAM; Palombo, Williams, Abdi, & Levine, 2012) is a measure of trait mnemonics in everyday life. It comprises items assessing self-reported episodic autobiographical, semantic, spatial, and prospective memory about multiple events that happened in the past. Autobiographical Memory Questionnaire (AMQ; Fitzgerald & Broadbridge, 2013) is assessing perceived attributes of memory of a specific event that happened in the past. Memory Experiences Questionnaire (MEQ; Sutin & Robins, 2007) assesses 10 relevant

dimensions of autobiographical memory: vividness, coherence, accessibility, sensory details, emotional intensity, visual perspective, time perspective, sharing, distancing, and valence, also about a specific event that happened in the past. Students of Faculty of Humanities and Social Sciences ($N = 168$) participated in the study. Mean age of participants was 20.76 ($SD = 1.91$). Participants were told to recall and describe a memory that is personally meaningful to them. They were to answer the questions about that specific event in both MEQ and AMQ. Internal consistency was high in all three questionnaires (SAM: Cronbach α was .84; AMQ: Cronbach α was .83; MEQ: Cronbach α was .85). The results of the factor analysis for SAM have shown that the four-factor solution produced good factor saturation for all items (> .30) and explained 49.1% of overall variance. The results of the factor analysis for AMQ have shown that when one-factor solution was forced, it produced good factor saturation for all items (> .50) and explanation of 33.4% of overall variance. The results of the factor analysis for MEQ have shown that when ten-factor solution was forced, it produced good factor saturation for all items (> .40) and explanation of 57.6% of overall variance. We can conclude that the translated versions of all three questionnaire about autobiographical memory have shown good psychometrics properties.

Key words: autobiographical memory, validation, questionnaires, students

New ways of describing self-love: The orthogonal narcissism concept

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The aim of the study was to verify the clinical distinction of the grandiose-vulnerable and overt-covert typology of narcissism in an empirical personality-psychological context. Former theoretical categories were based upon the presumption, that the two typologies have mostly the same meaning, leading to the formation of the vulnerable/covert – grandiose/overt schematic and oversimplifying distinction. According to the theory of Pincus and Lukowitsky (2010), both vulnerable and grandiose type of narcissistic pathology could appear in the behaviour covert- or overt form. In a normal undergraduate sample ($N = 149$) with sublicinal narcissism tests (NPI, MCNS) and with the use of the RSES personality test, we tried to support the clinical ideas of Pincus and Lukowitsky. According to the results of the densepoint analysis, there are specific points, which prototipically describe the sample, and some of these points are in a vulnerable and overt or grandiose and covert region. These empirical findings lead us to a new and integrative trait based networking classifying of narcissism, which we call "orthogonal narcissism concept".

Key words: narcissism, sublicinal narcissism, densepoint analysis, orthogonal narcissism concept

Jung, anti-semitism, and the analytical community

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C.G. Jung's complicated and paradoxical relationship to Jews and Judaism is a controversial, much discussed, and still unsettled matter since his break with Freud in 1913. The contradictory role he played in the 1930s as the president of the General Medical Society for Psychotherapy and some of his writings and statements which showed similarities with the Nazi rhetoric, by the end of the war led some to accuse Jung of anti-Semitism and of being a Nazi sympathizer. Although the allegations were disproved and the controversy quieted down, its effects are still felt in the current literature, with interpretations of Jung's conduct and his statements showing a wide spectrum. There have been continuous efforts to counter the accusations on the part of Jung's followers since the end of the 1940s, but a new turn in the approach to the subject has become prevalent since the 1980s: an attempt was made to rethink the question contextually, and identify which aspect of Jung's discourse could have led to his thought being linked to Nazi ideology. The presentation examines how Jung's purported anti-Semitism impacted on the identity of the Jungian community and I try to identify the different strategies and narratives with which the succeeding Jungian generations tried to come to terms with this controversial part of Jung's life analysing recent post-Jungian interpretations.

Key words: Jung, anti-semitism, postjungians, narratives

Play, cognition, and culture

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The psychological theories of play are generally independent from each other. Because most of those generated in the XX century, some of them simultaneously, mostly dealt with different aspects of play, we think these theories have common points, which can be called the essence of play. We highlight Piaget's epistemological approach of cognitive development and the connection to the other psychological theories of play. Then we present the possible connection between play and cognition, and also between play and culture.

Key words: play, cognitive development, culture, Piaget

The role of psychological functioning in the adjustment of lower limb amputees

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Rehabilitation of lower limb amputees and the fitting of their prosthesis depend highly on the psychological adjustment process and motivational state of the patient. The loss of a limb is extremely challenging and can cause various physical and psychological problems (Gallagher, 2004; Horgan & MacLachlan, 2004). Most amputees experience stump pain and phantom limb pain. Their functional abilities become restricted and they have to learn over again how to carry out the simplest daily activities. Social difficulties are liable to occur (e.g., social distress, dependence on others, isolation, social stigmatization). Depression, anxiety, decreased well-being and quality of life, body image dissatisfaction, and changes in self-concept and identity are frequent after lower limb amputation (Murray & Fox, 2002; Senra & mtsai, 2011). In the interest of adjustment patients have to cope with the emerging changes and difficulties in their lives as well as the problems in psychological functioning. It is important for them to accept the alterations in their body and identity and integrate them in a new self-concept in which process motivation is a fundamental issue. Assessment of psychological functioning, motivation, and changes in body image and identity after lower limb amputation are of utmost importance, because the results can be easily put into practice. The aim of my study is to establish a model based on lower limb amputees psychological functioning which can be utilized in their rehabilitation. We conducted a study using questionnaires addressing the following variables: body image, identity, self-determination, physical and psychological well-being, social support, basic psychological needs, and the perceived meaning of life. Our preliminary results suggest that a model mentioned above can be established.

Key words: lower limb amputation, rehabilitation, psychological functioning, motivation

Relationship between second to fourth digit ratio and sexual behavior

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Second to fourth digit ratio (2D:4D), as well as the difference between 2D:4D in the right and in the left hand (D), are assumed to be indicators of prenatal testosterone exposure, with lower 2D:4D and D reflecting higher exposure. Previous studies have found that lower ratio was a negative correlate of sex drive and number of sexual partners in men. Research of the relationship between sex drive and 2D:4D in women produced less consistent results. While some studies found a negative relationship, others reported no significant associations. Therefore, the aim of this study was to further investigate possible associations between women's 2D:4D and some aspects of sexual behavior, including sociosexuality and relative number of sexual partners. Thirty-two heterosexual women, aged between 18 and 22, participated in this study. Finger measurements were made from photocopies of the ventral surface of both hands, using digital vernier caliper. To assess willingness to engage in casual sex, Sociosexual Orientation Inventory (SOI, Simpson & Gangestad, 1991) was used. Women also reported their age of the first sexual intercourse and number of sexual partners in a lifetime. Result showed positive relationship between 2D:4D in right hand and relative number of sexual partners. This relationship was not found for the left hand, which is in line with previous research which showed that many 2D:4D associations were stronger for right, rather than left hand. Furthermore, results showed positive relationship between the SOI score and D. In general, results imply that lower exposure to prenatal testosterone is associated with greater number of sexual partners and willingness to engage in casual sex. This is contradictory to the previous findings in men. However, these preliminary results could imply different androgen effects on sexual behavior in men and women. Therefore, future research is recommended.

Key words: digit ratio, sociosexuality, sexual behavior

The perceptions of the seriousness of school bullying: Pre-service teachers vs. teachers

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Research shows that teacher beliefs about the seriousness of bullying affect their decision whether to intervene in peer bullying or not (Bauman & Del Rio, 2006; Craig, Bell, & Leschied, 2011; Yoon & Kerber, 2003). Teachers perceive different types of peer bullying (physical, verbal, and relational) differently and therefore also intervene in different ways. In our study we wanted to find out the differences among pre-service teachers and teachers in their perceptions of seriousness of peer bullying. We were also interested in the intervention predictors in both groups. One hundred and ninety-two pre-service teachers and 70 primary school teachers participated in the study. We used six school bullying vignettes from a questionnaire by Yoon and Kerber (2003). The results show that teachers perceive all types of peer bullying as more serious and are more prepared to intervene than pre-service teachers. The latter consistently show more empathy for the victims of all types of bullying. The need for intervention in all types of bullying is most strongly predicted by teachers' estimation of the bullying seriousness. Interventions in relational and physical bul-

lying on the other hand can also be predicted by years of teaching – older teachers are more sensitive to these types of bullying and also intervene earlier than younger teachers. In physical bullying the teachers' level of empathy for the victim predicts their responsiveness – teachers with more empathy intervene faster. The responsiveness to all types of bullying in pre-service teachers is positively correlated with their estimation of seriousness of bullying and empathy for the victim. Younger students show greater readiness to intervene in verbal bullying than their older peers. Students from primary teacher programs, girls, and younger students are more prepared to intervene in relational bullying. We found the greatest readiness for interventions in physical bullying in the group of students from primary teacher programs. Some practical implications will be discussed.

Key words: seriousness of school bullying, pre-service teachers, teachers, interventions

Connectivity of epistemological beliefs and beliefs about teaching practices in teachers

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Research shows that teachers' epistemological beliefs correlate with their prevailing practices in the classroom (constructivist vs. transmission model of teaching; e.g., Hasweh, 1996; Kang & Wallace, 2004; Pajares, 1992; Prawat, 1992). We were interested in the connections between teachers' epistemological beliefs and their beliefs about the teaching practices they find more important in the classroom. There were 257 teachers of different domains in general secondary school participating in our study. They responded to Epistemological Beliefs Scale (Chan & Elliot, 2002) and Teachers' Beliefs About Teaching questionnaire (TALIS, 2009). The first questionnaire has five factors: Learning Effort ($\alpha = .67$), Innate/Fixed Ability ($\alpha = .73$), Certainty Knowledge ($\alpha = .63$), Learning Process ($\alpha = .65$), and Expert Knowledge ($\alpha = .47$). These factors together explain 45% of the variance. The second questionnaire has two factors: Constructivist Teaching ($\alpha = .58$) and Transmission Teaching ($\alpha = .60$). Together these two factors explain 46% of the variance. The results show that teachers who prefer the traditional/transmission model of teaching are more inclined to believe that one's abilities are fixed at birth and cannot be altered much in the course of schooling. At the same time we found out that teachers who prefer constructivist teaching practices more often express beliefs about the importance of the process of learning and understanding the learning material. Results also show a moderate correlation between the beliefs about transmission and constructivist teaching models, which probably shows that teachers are aware of the importance of combining both approaches in practice. Some practical implications will be discussed.

Key words: epistemological beliefs, constructivist vs. transmission model of teaching, teachers

Self-perceived competences among psychology students

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A key question in the education of psychologists is whether students are competent to begin professional practice upon the conclusion of their studies. The aim of our study was to investigate self-perception of competences among the first and second level psychology students from two Slovenian universities. In an online survey, 148 students assessed their own competences: 42 general and 45 specific professional competences. They also provided demographic data, data on their study and out-of-school activities, average grade, and satisfaction with the studies. In addition, their personality was assessed with the 10-Item Big Five Inventory. We found that self-perceived competences – both the general and the specific ones – increased with the study year. Self-perceived general and specific competences (i) were highly intercorrelated, even when the year of the study was controlled for, and (ii) correlated positively with extraversion, conscientiousness, out-of-school activities, and the time invested in learning and homework, but were not related to satisfaction with the studies or the average grade. The results of our study indicate that perception of the student's own competences may depend not only on the experiences gained during the academic studies, but also on the student's activities outside the academic environment. We therefore infer that out-of-school activities should be supported because they increase students' professional competences and/or their professional confidence. The effect of personality on self-perceived competences suggests that the validity of self-assessment of competences may be questionable.

Key words: competences, psychology, students, professional development, personality

The SNARC effect for pitch height: Linear or categorical?

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The SNARC effect (Dehaene et al., 1993) suggests an advantage in processing small/large number magnitudes with responses executed in the left/right hemispace respectively. The same effect was also found for various numerical and non-numerical magnitudes, such as pitch height in the music domain (Rusconi et al., 2005). Dehaene et al. (1993) explained the SNARC effect by the proposition that there is a direct mapping between the position of a number on a mental number line (Restle, 1970) and the external space

of response execution. Conversely, other authors (Gevers et al., 2006; Proctor & Cho, 2006) claim that numbers are automatically categorized in conceptual categories depending on task requests (e.g., odd/even and small/large) and then associated to response alternatives. Following the protocol introduced by Santens and Gevers (2008), we investigated the SNARC effect for pitch height using unimanual close/far responses instead of more common bimanual left/right responses. Contrary to Santens and Gevers (2008), our data provide more support for the direct mapping account, suggesting a linear representation for pitch height. From this point of view, mental representations of numbers and music tones seem to be largely dissimilar, supporting opposite theoretical accounts.

Key words: SNARC, SMARC, pitch, music, spatial response correspondence

Effects of a perceptual training on predictive abilities of soccer goalkeepers

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This study aims to test whether skilled soccer goalkeepers can benefit from a perceptual training by assessing their performances while engaged in predicting the direction of penalty kicks. To achieve this aim, a sample of goalkeepers playing in the academies of professional and semi-professional Italian teams was recruited. Subjects were randomly assigned to one of three groups: experimental, placebo, and control. All the groups were tested with temporal occluded videos of penalties recorded from the goalkeeper perspective, both at the beginning of the experiment and after eight weeks. During this interval, the experimental group practiced with an innovative "take-away" home-training, based on videos analogous to those of the test, with the addition of positive and negative feedbacks. The placebo group viewed television footages of penalty kick shoot-outs. Participants of both groups were free to schedule their training/placebo sessions. Finally, the control group did not receive any treatment. Results revealed significant accuracy improvements between pre-test and post-test only for the experimental group goalkeepers. This outcome indicates that even skilled soccer goalkeepers can benefit from perceptual trainings, aspect which was never investigated before. Moreover, the same outcome demonstrates also the efficacy of the innovative training protocol proposed. Considering its effectiveness and its simple application, future studies should investigate in order to maximize the potential of this protocol.

Key words: perception, action, temporal occlusions, video, penalty kicks, training

How the geometric information guide us in reorientation? Navigation in two and three dimensional space

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The study presents the use of geometric and non-geometric information in 2D and in 3D spatial reorientation. Three- and four-year-old children participated in the research. Experiment 1 used animated (2D) design in a specific deltoid array, varying the available spatial information (geometry, feature, and landmark) while the degree of disorientation varied across trials (rotated in 45 and 180 degree). The results showed that the children were not sensitive to non-geometric information, but the unique angle and the landmarks supported the reorientation. Experiment 2 used realistic (3D) design in a similar deltoid array. The results demonstrated that the reorientation of children was based on the non-geometric and on the directional information. These findings are discussed in the context of spatial reorientation and core knowledge.

Key words: children, geometry, reorientation, 2D and 3D space

Understanding deceptive intentions behind the communicative gestures

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Joint attention behavior and the ability to share experience with others serves a significant communicative function during the prelinguistic period of early ages, and along with facial and bodily gestures plays a salient role in the process of recognizing deceptive intentions of others. The aim of the present study is to discover how children (12-15 months old) read the deceptive intentions from others' gestures. In Experiment 1 we examined infants' reaction to an unreliable adult's behavior in a problem solving situation, where the teaching person behaves ambiguously. Infants are able to discriminate the reliable and the deceptive communication of adults. Based on the previous results in Experiment 2 we tested how infants respond to a new persons' communicative gestures following a deceptive condition. Our findings suggest that even 12 month old infants understand deceptive intentions behind the communicative gestures in the unreliable teaching situation, but they do not generalize their previous experience for a new person who

is treated as reliable source of information and teaches relevant information. These findings are consistent with the assumption based on natural pedagogy, that infants eventually treat adults as a reliable sources of information.

Key words: deception, communicative gestures, infant, natural pedagogy

Adaptation of Social Competence and Behavior Evaluation (SCBE) for adolescents

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The SCBE Preschool Edition (LaFreniere & Dumas, 1995) measures social behavior in preschool: Social Competence (e.g., joyful, prosocial towards peers, cooperative in relation to adults), Internalizing Behavior (e.g., anxious, isolated from the peer group), Externalizing Behavior (e.g., angry, oppositional toward the adults), and General Adaptation. Slovene version of SCBE (LaFreniere et al., 2001) has been extensively used in research (e.g., Vidmar, 2011a; Zupančič & Kavčič, 2007). In one of the undergoing studies (Vidmar, 2011b) that follows participants through compulsory school the need to use SCBE on older target population (i.e., mid-adolescents) has arisen. The aim of the present study is to adapt preschool version of SCBE for mid-adolescents for research purposes and to verify the modified version. We describe the process of adaptation of SCBE. Moreover, the pilot version of SCBE for adolescents has been verified on a sample of about 400 eight- and nine-graders from different schools around Slovenia. The confirmatory factor analyses and Cronbach alphas for basic bipolar scales as well as for composite scales are presented. The results are discussed in the light of general use of the scale SCBE for (mid-)adolescents.

Key words: social behavior, adolescence, scale adaptation

Investigation of spirituality using the PSI-Theory

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Psychological research has addressed the investigation of different dimensions of spirituality and the discussion about their meaning since more than hundred years. According to personality systems interactions theory (PSI-theory; Kuhl, 2001), the activity of non-verbal cognition systems can lead to a special quality of experience, highly overlapping with James' (1902) definitions of mystical experiences. Within PSI-theory, those non-verbal aspects of cognition are assumed to be a relevant part of personality.

Furthermore, PSI-theory allows a not purely theistic comprehension of spirituality. In order to investigate the relation between spiritual experiences and dimensions of personality which are defined by PSI-theory, an online study was conducted. The following instruments were used: the Mystical Orientation Scale (MOS; Francis & Louden, 2000), the Personality Trait and Structure Inventory (PSSI; Kuhl & Kazén, 2009), the MMPI-2 bizarre scale (Hathaway, Engel, & MacKinley, 2000) and the Big-5 with the NEO-FFI after Costa und McCrae (Borkenau & Ostendorf, 1993). Empirical data supports the assumptions that some aspects of spirituality also can be attributed to these non-verbal cognitions and the occurrence of psychotic states. Further results will be presented and discussed in the presentation.

Key words: spirituality, PSI-theory, personality

Evolutionary origin or arousal modulates visual search?

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Negative emotional stimuli have greater effects on visual search than neutral and positive ones. Using a visual search task, Öhman and colleagues have shown in several studies that participants detect pictures of snakes or spiders presented among neutral pictures (flowers, mushrooms) faster than they detect mushrooms or flowers among snakes or spiders. In addition, the evolutionary ancient stimuli (snakes) captured attention more than modern threatening objects (guns). Besides the content of the threatening pictures, other factors could cause the attentional advantage just like the physical properties of the stimulus (e.g., colour, size, motion) or the level of arousal it evokes. In this study, we examined the effect of arousal (high, medium) and the type of threat (evolutionary/non-evolutionary). Each item of the stimulus set was a combination of a picture from the International Affective Picture System (IAPS) and a visual search matrix with numbers from 1 to 35. We have found a significant interaction of stimulus and arousal. That is, the two types of snakes had a different effect on visual search performance: participants showed the lowest performance in the case of medium arousal snake, while the high arousal snake did not decrease the visual search. Regarding the guns, there was no significant effect. Our results indicate that attention is not attracted by the evolutionary ancient snake, because the effect of high arousing snake is not significantly differ from the effect of moderately and highly arousing guns. Probably, other components take role in these findings. Further studies are required to identify the proper mechanisms behind.

Key words: visual search, evolutionary advantage, arousal, IAPS

AUTHOR INDEX