



THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH

Abstract Book

**17th Annual International Conference on
Psychology
22-25 May 2023 Athens, Greece**

**Edited by
Thanos Patelis & Olga Gkounta**

2023

Abstracts
17th Annual International
Conference on Psychology
22-25 May 2023, Athens, Greece

Edited by
Thanos Patelis & Olga Gkounta

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Preface

This book includes the abstracts of all the papers presented at the 17th Annual International Conference on Psychology (22-25 May 2023), organized by the Athens Institute for Education and Research (ATINER).

A full conference program can be found before the relevant abstracts. In accordance with ATINER's Publication Policy, the papers presented during this conference will be considered for inclusion in one of ATINER's many publications only after a blind peer review process.

The purpose of this abstract book is to provide members of ATINER and other academics around the world with a resource through which they can discover colleagues and additional research relevant to their own work. This purpose is in congruence with the overall mission of the association. ATINER was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world can meet to exchange ideas on their research and consider the future developments of their fields of study.

To facilitate the communication, a new references section includes all the abstract books published as part of this conference (Table 1). I invite the readers to access these abstract books –these are available for free– and compare how the themes of the conference have evolved over the years. According to ATINER's mission, the presenters in these conferences are coming from many different countries, presenting various topics.

Table 1. *Publication of Books of Abstracts of Proceedings, 2011-2023*

Year	Papers	Countries	References
2023	40	19	Patelis and Gkounta (2023)
2022	32	20	Patelis and Gkounta (2022)
2021	17	9	Papanikos (2021)
2020	22	8	Papanikos (2020)
2019	30	14	Papanikos (2019)
2018	28	13	Papanikos (2018)
2017	29	16	Papanikos (2017)
2016	32	15	Papanikos (2016)
2015	34	17	Papanikos (2015)
2014	31	16	Papanikos (2014)
2013	62	32	Papanikos (2013)
2012	51	26	Papanikos (2012)
2011	53	21	Papanikos (2011)

It is our hope that through ATINER's conferences and publications, Athens will become a place where academics and researchers from all over the world can regularly meet to discuss the developments of their disciplines and present their work. Since 1995, ATINER has organized more than 400 international conferences and has published over 200 books. Academically, the institute is organized into 6 divisions and 37 units. Each unit organizes at least one annual conference and undertakes various small and large research projects.

For each of these events, the involvement of multiple parties is crucial. I would like to thank all the participants, the members of the organizing and academic committees, and most importantly the administration staff of ATINER for putting this conference and its subsequent publications together.

Gregory T. Papanikos
President

Editors' Note

These abstracts provide a vital means to the dissemination of scholarly inquiry in the field of Psychology. The breadth and depth of research approaches and topics represented in this book underscores the diversity of the conference.

ATINER's mission is to bring together academics from all corners of the world in order to engage with each other, brainstorm, exchange ideas, be inspired by one another, and once they are back in their institutions and countries to implement what they have acquired. The 17th Annual International Conference on Psychology accomplished this goal by bringing together academics and scholars from 19 different countries (Barbados, Canada, Cyprus, France, Germany, Greece, Israel, Italy, Japan, Lithuania, Portugal, South Africa, Spain, Switzerland, Türkiye, UAE, UK, Ukraine, USA), which brought in the conference the perspectives of many different country approaches and realities in the field.

Publishing this book can help that spirit of engaged scholarship continue into the future. With our joint efforts, the next editions of this conference will be even better. We hope that this abstract book as a whole will be both of interest and of value to the reading audience.

Thanos Patelis & Olga Gkounta
Editors

**17th Annual International Conference on Psychology, 22-25
May 2023, Athens, Greece**

Organizing & Scientific Committee

All ATINER's conferences are organized by the Academic Council. This conference has been organized with the assistance of the following academic members of ATINER, who contributed by reviewing the submitted abstracts and papers.

1. Gregory T. Papanikos, President, ATINER & Honorary Professor, University of Stirling, U.K.
2. Thanos Patelis, Head, Psychology Unit of ATINER & Director of Test Development and Assessment, Johns Hopkins Center For Talented Youth & Psychometrician, Achievement and Assessment Institute, University of Kansas, USA.

FINAL CONFERENCE PROGRAM

17th Annual International Conference on Psychology, 22-25 May 2023,
Athens, Greece

PROGRAM

Monday 22 May 2023

08.30-09.15
Registration

09:15-10:00

Opening and Welcoming Remarks:

- **Gregory T. Papanikos**, President, ATINER.

10:00-11:30 Session 1

Moderator: Liam Reilly, Director & Clinical Psychologist, Belfast Psychology Services, Ireland.

1. **Lloyd Robertson**, Professor, University of Regina, Canada.
Title: The Evolved Self: Mapping an Understanding of Who We Are.
 2. **Andrew Campbell**, Director, International Peace and Leadership Institute, USA.
Ebben Van Zyl, Professor, University of the Free State, South Africa.
Title: Chaos is a Gift? Leading Oneself in Uncertain and Complex Environments.
 3. **Jacqueline Akhurst**, Emeritus Professor, Rhodes University, South Africa.
Title: Community-Based Service Learning: Enhancing Mainstream Psychologies.
 4. **Megan Campbell**, Associate Professor, Rhodes University, South Africa.
Title: Building Capacity for Couples Research in Africa.
-

Discussion

11:30-13:00 Session 2

Moderator: Lloyd Robertson, Professor, University of Regina, Canada.

1. **Andrew Scharlach**, Professor, University of California, Berkeley, USA.
Title: A Process Model of Constructive Psychological Aging.
 2. **Irene Pelaez**, Professor, Rey Juan Carlos University, Spain.
Francisco Mercado, Professor, Rey Juan Carlos University, Spain.
Corrado Corradi-Dell'Acqua, Professor, University of Geneva, Switzerland.
Patrik Vuilleumier, Professor, University of Geneva, Switzerland.
Title: Pain Processes Modulated by Unconscious Emotional Pictures: An Fmri Study.
 3. **Luis Carretié**, Professor, Autonomous University of Madrid, Spain.
Title: Fast Detection of Emotional Visual Stimuli: An Electrophysiological Study.
 4. **Maria Ali**, Lecturer, University of Central Lancashire, Cyprus Campus, Cyprus.
Title: Sex Addiction in Men. An IPA Exploration.
-

Discussion

13:00-14:30 Session 3

Moderator: Megan Campbell, Associate Professor, Rhodes University, South Africa.

1. **Daive Maria Marchioro**, Professor, Salesian University Institute Venice, Italy.
Marco Zuin, Professor, Salesian University Institute Venice, Italy.
Title: Assessing the Suitability of Virtual Reality (VR) for Cognitive Assessment Using Advanced Progressive Matrices (APM).
2. **Claudia Simone Dorchain**, Researcher, Institute of Economy and Psychology, Germany.
Title: Exploring the Criminal Mind. CKM, the New Psychometric Method.
3. **Helene Simke-Wallach**, Researcher, University of Haifa, Israel.
Marilyn Safir, Professor, University of Haifa, Israel.
Tom Livni, Research Assistant, University of Haifa, Israel.
Rachel Forschner, Research Assistant, University of Haifa, Israel.
Title: Virtual Reality Cognitive Behavior Therapy for Flight Phobia – Identifying Factors that Impact Effectiveness.
4. **Kaelig Raspail**, PhD Student, University of Tours, France.
Title: Does a Deficit in Executive Functions Explain Particularities in Social Information Processing in Young People with Mild Intellectual Developmental Disorder or Borderline Intellectual Functioning?

Discussion

14:30-15:30 Discussion + Lunch

15:30-17:30 Session 4

Moderator: Luis Carretié, Professor, Autonomous University of Madrid, Spain.

1. **John Trougakos**, Professor, University of Toronto, Canada.
Title: COVID Anxiety: Exploring its Impact on Employee Work and Personal Outcomes.
2. **Francisco Mercado**, Associate Professor, Rey Juan Carlos University, Spain.
Title: Temporal Course of Working Memory Dysfunction in Fibromyalgia: An Event-Related Study.
3. **Susan Chang Su**, Assistant Professor, Brandon University, Canada.
Gordon Flett, Professor, York University, Canada.
Title: The Impacts of Resilience and Risk Factors on Psychological Well-Being of International Students in Canada during the COVID-19: The Role of Mattering, Anti-Mattering, and Belongingness.
4. **Simon Howard**, Assistant Professor, University of Miami, USA.
Title: The Relationship between Gendered God Concepts and Gender Neutral Liturgy.
5. **Francisca Acedo**, Specialist of Environmental, Health and Safety, Health Research Institute of the Jiménez Díaz Foundation, Spain.
Teresa Del Campo, Occupational Medicine, Health Research Institute of the Jiménez Díaz Foundation, Spain.
Title: Psychological Well-Being, A Health Tool for Healthcare Workers During Covid-19 Pandemic.
6. **Tyler Womack**, PhD Candidate, University of California, USA.
Title: Parent Involvement in Special Education: Testing a Theoretical Model of Motivational Factors.

Discussion

17:30-19:30 Session 5

Moderator: Mr Kostas Spyropoulos (ATINER Administrator).

1. **Iryna Martyniuk**, Head of Department of Psychology, National University of Life and Environmental Sciences of Ukraine, Ukraine.

- Title:** *Psychological Features of Students' Self-Educational Activities in Extreme Conditions of War.*
2. **Mohammad Aldhawyani**, Head of Forensic Psychology, Dubai Police, UAE.
Title: *Towards a more Resilient Policing: an Investigation of Dubai Police Psychological Job demands Triangle (Emotions Regulation thought Control and Decision-making) and How it Informs Training and Interventions.*
 3. **Jean Fourie**, Senior Lecturer, University of Johannesburg, South Africa.
Daniela Girao, Teacher, Special Needs School, South Africa.
Title: *Psycho-Social Support for a Prematurely Born Child with a Severe Learning Disorder.*
 4. **Aashna Doshi**, PhD Student, University of Bamberg, Germany.
Sabine Weinert, Head, Department of Developmental Psychology, University of Bamberg, Germany.
Manja Attig, Leibniz Institute for Educational Trajectories, Germany.
Title: *Executive Functions and Science Literacy among Young Children.*
 5. **Guste Gramaglia**, PhD Candidate, Mykolas Romeris University, Lithuania.
Title: *Systematic Analysis: Supporting the Well-being and Job Satisfaction of Firefighters.*
 6. **Sandra Velez-Candelario**, CEO/Consultant, Family Organizational Psychology.Org, USA.
Title: *Family Organizational Basics: Leadership, Communication, Environment, and Culture.*

Discussion

20:00-22:00

Athenian Early Evening Symposium (includes in order of appearance: continuous academic discussions, dinner, wine/water, music and dance)

Tuesday 23 May 2023

08:00-11:00 Session 6

Old and New-An Educational Urban Walk

The urban walk ticket is not included as part of your registration fee. It includes transportation costs and the cost to enter the Parthenon and the other monuments on the Acropolis Hill. The urban walk tour includes the broader area of Athens. Among other sites, it includes: Zappion, Syntagma Square, Temple of Olympian Zeus, Ancient Roman Agora and on Acropolis Hill: the Propylaea, the Temple of Athena Nike, the Erechtheion, and the Parthenon. The program of the tour may be adjusted, if there is a need beyond our control. This is a private event organized by ATINER exclusively for the conference participants.

11:30-13:00 Session 7

Moderator: Jacqueline Akhurst, Emeritus Professor, Rhodes University, South Africa.

1. **Celia Ribeiro**, Professor, Portuguese Catholic University & CIDEI, Portugal.
Ana Figueira, Professor, University of Coimbra & CIDEI, Portugal.
Title: *Understanding Metaphors: A Study with Portuguese 4-6 Year-Old Children.*
2. **Ana Figueira**, Professor, University of Coimbra & CIDEI, Portugal.
Title: *Understanding Metaphors. Preliminary Results with Children 9-14 Years Old.*
3. **Antonio Duarte**, Professor, University of Lisbon, Portugal .
Niki Constantinidi, Teacher, Evening General High School of Rhodes, Greece.
Title: *Traces of Knowledge and Use of Cues of Sensory Processing in Ancient Greek Art: A Study in Psychology of Art.*
4. **Futoshi Kobayashi**, Professor, Miyazaki International College, Japan.
Title: *Student Evaluations on Positive Psychology Course: Pilot Test.*

Discussion

13:00-14:30 Session 8

Moderator: Helene Simke-Wallach, Researcher, University of Haifa, Israel.

1. **Dorit Olenik-Shemesh**, Associate Professor, The Open University of Israel, Israel.
Tali Heiman, Associate Professor, The Open University of Israel, Israel.
Sigal Eden, Associate Professor, Bar - Ilan University, Israel .
Yaakov Yablom, Professor, Bar - Ilan University, Israel.
Title: Youth Problematic Internet Use in Relation to Social Interactions: The Effects of COVID-19 Pandemic.
2. **Johannes Titz**, Researcher, Chemnitz, University of Technology, Germany.
Title: State-Trace Analysis Meets Psychometrics: Why the Big Five Questionnaires are not Based on Five Latent Factors and How to Fix Them.
3. **Annika Sternkopf**, Master Student, Chemnitz University of Technology, Germany.
Johannes Titz, Researcher, Chemnitz, University of Technology, Germany.
Title: Understanding Dimensional Problems in Big Five Questionnaires by Combining a New Variant of State Trace Analysis with Qualitative Methods.
4. **Catherine Trotman**, Lecturer, The University of the West Indies, Barbados.
Title: Adverse Childhood Experience in Barbados – A Pilot Study.

Discussion

14:30-15:30 Discussion + Lunch

15:30-17:00 Session 9

Moderator: Dorit Olenik-Shemesh, Associate Professor, The Open University of Israel, Israel.

1. **Jan Noyes**, Professor, University of Bristol, UK.
Title: Role of Time Perception in Automation.
2. **Susan Cahill**, PhD Candidate, Rhodes University, South Africa.
Title: Thinking outside the (Therapy room) Box: Individual Therapy vs a Clinical Psychology Psychoeducational Consultancy Model.
3. **Diljot Kaur Sooin**, Assistant Professor, Adler University, Canada.
Title: Predictor Measures in Selection of I/O Practitioners: Evidence-based Personnel Assessment.
4. **Sophie Hart**, Research Associate, University of Bristol, UK.
Title: Using the Decision Ladder to Explore the Human Decision-Making Processes of Search and Rescue Personnel during a UAV-equipped Mission.

17:00-18:30 Session 10

Moderator: Mr Kostas Spyropoulos (ATINER Administrator).

1. **Ora Peleg**, Head of School Counseling and Education Department, The Academic College Emek Yeezrel, Israel.
Efrat Hadar, Lecturer, The Academic College Emek Yeezrel, Israel.
Ronit Shalev, Senior Lecturer, The Academic College Emek Yeezrel, Israel.
Title: Orphans' Experience in School a few Years after the Loss of a Parent.
2. **Natasha Sigala**, Senior Lecturer, University of Sussex, UK.
Title: Fast Sensorimotor Learning in Middle-Aged Adults.
3. **Dilan Aktas**, PhD Student, Middle East technical University, Turkiye.
İrem Erten, Researcher, Middle East technical University, Turkiye.

- Tulin Gencoz**, Vice-chancellor, Middle East technical University, Turkiye.
Title: Digital Game Addiction, Social Anxiety, and their Relationship with Social Connectedness.
4. **Daniel J.N. Weishut**, Senior Lecturer, Hadassah Academic College, Israel.
Rachel Rokach, Independent Practitioner, USA.
Dorit Gurny, Independent Practitioner, Israel.
Bettina Steiner-Birmanns, Senior Physician, Department of Neurology, Shaare Zedek Medical Center, Israel.
Title: Interdisciplinary Encounters Between Health Professionals Assessing Torture Victims.

19:00-20:30

Ancient Athenian Dinner (includes in order of appearance: continuous academic discussions, dinner with recipes from ancient Athens, wine/water)

Wednesday 24 May 2023
An Educational Visit to Selected Islands
or
Mycenae Visit

Thursday 25 May 2023
Visiting the Oracle of Delphi

Friday 26 May 2023
Visiting the Ancient Corinth and Cape Sounio

Francisca Acedo

Specialist of Environmental, Health and Safety, Health Research
Institute of the Jiménez Díaz Foundation, Spain

&

Teresa Del Campo

Occupational Medicine, Health Research Institute of the Jiménez Díaz
Foundation, Spain

Psychological Well-Being, a Health Tool for Healthcare Workers during COVID-19 Pandemic

Antecedents: The psychological impact for the healthcare workers (HCW's) was especially important in the first wave of COVID-19 pandemic. In addition, along the COVID-19 pandemic the psychological impact has continued to be important.

Methods: We have collected our intervention about psychological well-being in a tertiary hospital of Madrid (Spain) during the first wave (February-May 2020) of COVID-19 pandemic. Finally, we have reviewed the term "Psychological impact of COVID-19 in HCW's" in the scientific literature using a web-based software (Covidence), finding 13 most important papers since 2020 till December 2022.

Results: a) Intervention: We designed a two-phase campaign about psychological well-being that was released to all hospital employees. In the first phase during the first wave of COVID-19 (when we were immersed in a confinement) we launched weekly campaigns with advice to combat the negative effects of the situation with these titles: psychological hygiene during COVID-19, physical exercise, food purchase, nutrition, leave the COVID-19 out of home, a good reading during confinement, and. skin protection against COVID-19 protective personnel equipment. In a second phase, four videos were designed and presented by the Clinical Psychological team of the Department of Psychiatry of our hospital, and they were released by e-mail and intranet: The videos were entitled; recovering safety, understanding my reactions, self-regulation resource, and awareness of the situation.

b) Scientific literature review: After the first wave, some authors (Shechter 2020, Li 2021) published their results after surveys with validated questionnaires, showing depression in 21-48% and anxiety in 19-30%. Even high rate of post-traumatic stress disorders of 31.6% was described (Li 2020). Along the COVID-19 pandemic, different authors have been studied the impact of this infection with important psychological impact in the healthcare workers (Alonso 2021, Matsumoto 2021, Honarmand 2022). It is highlighted that the challenge

around COVID-19 pandemic in medical students and newly graduated (Ferreira 2021, Katsuta 2021). Different authors have studied barriers and facilitators to implementation of this type of interventions and the evidence of these measures are yet limited (Pollock 2020, Hoosper 2021). For instance, it has been described that interventions to improve effective communication, and cohesion through the company had positive results to enhance team resilience (Blake 2020, Cao 2020).

Conclusion: psychological interventions must be planned to the specific healthcare settings and different groups of healthcare workers to prevent disorders as burn out.

Jacqueline Akhurst

Emeritus Professor, Rhodes University, South Africa

Community-Based Service Learning: Enhancing Mainstream Psychologies

In democratic South African (SA), resource-constraints in delivering mental health services to the majority mean that clinical psychologists are also exposed to ideas from community psychology in their training. However, there is little evidence of translating community psychology principles into practice. In response, Community-Based Service Learning (CBSL) has been implemented in two SA universities, to promote and develop trainees' experiences of community psychology. CBSL (called 'service learning' in the US literature) has been shown to sensitize trainees to the impacts of social inequality and to enhance their learning. Important aspects of CBSL are the promotion of psycho-education and to make psychological interventions more accessible, through partnerships with individuals and organizations, in non-traditional settings.

This paper will provide examples of the impact of CBSL on Masters-level clinical psychology trainees' knowledge and practice in a number of different settings in two provinces of SA. It will illustrate key elements of trainees' accounts; and provide a critique of a mental health approach to community psychology, which focuses on amelioration rather than social transformation. Evidence from facilitated reflective research processes will provide examples of the interactions between people and systems, as well as the limitations experienced by trainees. The discussion will explore the tensions in CBSL and partnership working, in contrast to regular clinical psychology practice; and the systemic constraints that limit the potentials of these approaches. Recommendations for training and practice will also be suggested.

Dilan Aktaş

PhD Student, Middle East technical University, Turkey

İrem Erten

Researcher, Middle East technical University, Turkey

&

Tülin Gençöz

Vice-chancellor, Middle East technical University, Turkey

Digital Game Addiction, Social Anxiety, and their Relationship with Social Connectedness

The role of social connectedness in promoting mental health is well established. In this respect, it is important to grasp the factors associated with social connectedness. It has been shown that social anxiety and social connectedness are closely associated. However, the mediating mechanisms linking social anxiety to social connectedness are not well understood. The aim of the present research proposal is to investigate the mediating role of digital game addiction in the association between social anxiety and social connectedness. Data will be collected from a sample of 400 university students from Turkey after obtaining ethical approval from Middle East Technical University Ethics Committee. Participants will fill out demographic information form, Game Addiction Scale (GAS), Liebowitz Social Anxiety Scale (LSAS), and Social Connectedness Scale (SCS) online. Structural equation modeling will be used to analyze the data and test the hypothesized mediation model. It is hypothesized that social anxiety will be negatively associated with social connectedness and positively associated with digital game addiction. Additionally, it is expected that digital game addiction will mediate the relationship between social anxiety and social connectedness. This may suggest that individuals with high social anxiety may turn to gaming as a coping mechanism, which in turn may lead to decreased social connectedness. The findings will be discussed within the framework of the psychoanalytic theory of Lacan. This theory offers a unique perspective on the role of the individual in relation to social interactions and addiction, which may be relevant to this study. The findings of the present study will have important implications for understanding the potential negative impact of digital game addiction on social connectedness, especially for individuals with high levels of social anxiety. This research will contribute to the existing literature on the impact of digital game addiction and social anxiety on social connectedness and provide

insights into potential therapeutic intervention strategies to mitigate the negative impact of game addiction.

Mohammad Aldhawyani

Head of Forensic Psychology, Dubai Police, UAE

Towards a More Resilient Policing: An Investigation of Dubai Police Psychological Job Demands Triangle (Emotions Regulation Thought Control and Decision-making) and How it Informs Training and Interventions

The question of police officers psychological and mental resilience has been highly debated in the field of police and organizational psychology with scholars such as (Preece et al., 2021), (Sambrano et al., 2021), and (Verhage et al., 2018) arguing that working for a police organization or law enforcement agency is considered one of the most mentally as well as physically demanding jobs. Although, Police officers face stress on a regular basis they are expected to be able to manage this stress by showing emotionally appropriate display rules. This mental and emotional stress increases the risk of developing psychological problems and let officers favor less adaptive decision-making styles such as avoidant and dependent styles. However, these perspectives have not adequately and sufficiently addressed the hypothetical correlation between police officers' emotions regulation techniques and other cognitive and mental abilities such as decision making and thought control with no reference to the role of experience. Therefore, the current research addresses the differences between experienced and non-experienced police officers in terms of how they regulate their emotions, what decision making styles they possess and how they respond to unwanted negative thoughts. Specifically, this research explores the correlation between Dubai police emotions regulation techniques and decision-making styles.

Three questionnaires (ERQ, GDMS and TCQ) were distributed to a sample of 236 Police Officers in Dubai. 113 were experienced Police Officers and 123 were from non-experienced (Cadets) group. Findings in the format of descriptive statistics show that there was an excessive use of avoidant as a decision-making style by both groups. Findings also show that there were some significant differences between experienced police officers and cadets on the way they regulate their emotions, make decisions and respond to unwanted thoughts suggesting that experience plays a key role in choosing and using adaptive strategies. What is more, SEM analysis was performed in order to formulate a model that best describes the relationship between emotion regulation techniques on one hand and decision-making styles on the other hand. Findings from SEM revealed that Excessive

Suppression as an emotion regulation technique predicted the use of avoidant and dependent decision-making styles.

These findings have several implications that could be summarized by shedding some light upon the use of expressive suppression as less-adaptive emotion regulation technique that predicts avoidant and dependent decision-making styles. This justifies the need for training and interventions that is directed towards areas such as emotions regulation, stress management, psychological and mental resilience. In conclusion, this research by closely examining the role of experience and the correlation between emotion regulation, decision making and thought control, sheds new light into the little, rarely acknowledged issue of designing training programs and interventions to improve police officers psychological and mental resilience and wellbeing.

Maria Ali

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Sex Addiction in Men: An IPA Exploration

Sex addiction is the subject of much debate, as it was considered and then refused as an entry in the DSM5. The most accepted definition is that it is characterized by a persistent pattern of failure to control intense, repetitive sexual impulses or urges, resulting in repetitive sexual behaviour over an extended period, that causes marked distress or impairment in personal, family, social, educational, occupational or other important areas of functioning. Research in the field has been predominantly medical-model based, focusing on symptomatology and correlates. There are far fewer studies on the experience of the sex addict. IPA was used to explore six self-identified sex addicts' experiences of sex addiction. Participants were recruited through an open invitation to attendees of Sex Addicts Anonymous UK. Semi-structured interviews were carried out and analysis of the data revealed four major themes: Experience of the Self, Relational Dynamics, the Sex Addict and Addiction, and Recovery. The results were congruent with pre-existing literature, however new developmental perspectives and relational styles related to sex addiction, as well as reasons for acting out were identified. Sex addiction can present as various sexual behaviours, in any combination. However, the context in which the behaviours occur is crucial to the conceptualization and assessment of sex addiction, and the subsequent impact they have on the person's social, relational and occupational functioning, and wellbeing. This study therefore recommends an integrative problem formulation and therapeutic approach in order to address the complexity and uniqueness of each person living with sex addiction. Such an approach should take into account:

- Developmental factors - attachment history and relational trauma
- Contextual factors - familial and cultural values towards sex, porn use, and infidelity, mental health issues of significant others (partners and family of origin)
- Potential diagnostic features - personality traits and relational styles
- Existential issues - social and support network, relationship status and attachment within romantic relationship, subsequent trauma.

An assessment and formulation should also consider the individual's perception of the "purpose" of the addiction, and how the behaviours are affecting the person. Implications to therapy include understanding

and addressing early relational ruptures and insecure attachments, grandiose self-statements, and enhancing intersubjectivity, not only focusing on symptom-management. The study also highlights the need for supervision, and researcher and therapist reflexivity. Future research should focus further on the role of early relational trauma, and on couple's therapy for sex addiction.

Susan Cahill

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Thinking Outside the (Therapy Room) Box: Individual Therapy vs a Clinical Psychology Psychoeducational Consultancy Model

Dilemma's exists about working with children who do not choose to attend therapy including circumstances where individual therapy might have adverse outcomes, such as reducing a child's self-esteem. The challenge then becomes trying to think outside the therapy room model, or outside the box of individual therapy to try to provide an effective intervention for children who are averse to attending therapy; may be too dysregulated in a consulting room; or where their increased stress may reduce the child's capacity to benefit from individual therapy or play-therapy sessions. Foster children who have experienced adverse circumstances such as different forms of maltreatment in the context of relationship with those who should care for them might represent such a client.

Clinical psychology tends to be individualistic, however using the principles of Community Psychology, especially sharing psychological knowledge through psychoeducation within a psychological consultancy model, might be an effective way to treat foster children effectively within their home environment. Considering the variety and complexity of issues affecting foster children requires the understanding of foster parents and other professionals such as social workers and teachers in order for some of these children to reach their potential. Providing psychoeducational-parenting groups to foster parents provides knowledge, support and the opportunity to interpret and respond differently to the foster child's problematic behaviour. Furthermore, psychologists can contribute to non-directive client-centred interventions by providing non-intrusive assessments (questionnaires completed by foster parents and teachers); observations in different contexts such as school or crèche; and listening to the contributions of all professionals at multidisciplinary meetings. Thus, constantly collecting information about the child through the eyes and experiences of all the people involved with the child, especially the foster parents.

This paper therefore suggests an alternative valuable role for the psychologist as consultant providing psychological interpretations of the child's cognitive, psychological and behavioural functioning based on the cumulative effect of the child's life experience from the

combined perspectives of three pivotal theories (development, attachment and trauma). These interpretations often reduce anxiety in parents and professionals, especially in relation to difficult-to-manage behaviours and provide hope; additionally providing a common language with which to communicate about, and understand the child. Healing within the relationships in the foster home may occur when foster parents, understanding the reasons for a child's behaviour, are able to provide a different response to the child's difficult or emotionally dysregulated outbursts, thus reducing the child's need to rely on previously learned (mal)adaptive strategies to connect or disconnect with people with whom they are in relationship.

Andrew Campbell

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&

Ebben Van Zyl

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Chaos is a Gift?

Leading Oneself in Uncertain and Complex Environments

Human nature has not changed since the beginning of time. One of the current global challenges is managing and adapting to the complexity and uncertainty of change and new demands. For instance, the coronavirus pandemic has led to a lock-down of countries all over the world. Many industries and factories were forced to shut down, adversely impacting global markets and economies. Levels of stress are soaring among employees due to rising employment uncertainty. Mental health problems such as depression and anxiety are escalating due to loneliness and isolation. The important question is how leaders and non-leaders can lead themselves in order to deal with changing world and demanding volatile, uncertain, complex and ambiguous (VUCA) environments. The purpose of this study is to determine if chaos and VUCA environments are indeed a gift. Some people are of the opinion that chaos can indeed be a gift if dealt with effectively (leading inter alia to innovation, better teamwork, better interpersonal relations and better performance). The method used is to analyse how prominent and successful world leaders dealt with the coronavirus pandemic. Prominent world leaders will include Emmanuel Macron (President of France), Jacinda Adern (Prime Minister of New Zealand), Sophie Wilmes (Prime Minister of Belgium) and Tsai Ing-wen (President of Taiwan). Possible decision-making skills (for instance decisiveness and agility), inner skills (for instance self-awareness), emotional skills (for instance empathy and resilience) and social skills (for instance openness and support) are highlighted. Results of the study will help leaders as well as non-leaders to deal effectively with uncertain and complex environments.

Megan Campbell

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Building Capacity for Couples Research in Africa

While the field of romantic relationships and couple intervention work is well established in North America and Europe, less research has been conducted in this area in Africa. Yet, couples intervention research could make a valuable contribution to intimate partner violence prevention programmes and interventions on the continent. The interpersonal predictors of violence in Africa couples project seeks to explore the relationship between attachment styles, conflict resolution styles, relationship satisfaction and violence within samples of South African and Ethiopian couples. The project is in its second year. Thus far the team has managed to translate and adapt a series of romantic relationship measures into local South African (Afrikaans and isiXhosa) and Ethiopian (Amharic) languages. These measures include the Experiences in Close Relationships (ECR) Scale (Brennan, Clark, & Shaver, 1998); Conflict Inventory (Ridley et al., 2001); Relationship Assessment Scale (RAS) (Hendrick, 1988) and the Composite Abuse (CASR-SF) Short Form (Ford-Gilboe et al., 2016). This is a considerable achievement as the language translations of these concepts and explanations provides a platform for the development of couple intervention discourses in these contexts. This presentation will focus on some of the challenges in preparing these tools for local use and what these challenges suggest about the transportability of couple therapy constructs and interventions to our context.

Luis Carretié

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Fast Detection of Emotional Visual Stimuli: An Electrophysiological Study

Response latency is a key clue to explore a crucial open issue in affective neuroscience, namely, which brain structures are responsible for initial, fastest detection of emotional visual stimuli. Recent theoretical proposals cast doubt on the assumed involvement of amygdala in this process due to its relatively long latency (conditioned by its high-order nature, i.e., it receives visual inputs after several synapses from the retina), and point to low-order visual thalamic and non-thalamic nuclei reported to process visual inputs earlier and actively. Interestingly, detecting the first emotional >neutral response (and its latency) in the visual cortex is essential at this respect since it is modulated by whatever the initial evaluation structure is. Event-related potentials (ERPs), especially well-suited for non-invasively exploring this issue in humans, were recorded using several methodological implementations to better analyze the earliest visual components. We presented emotionally negative (spiders) and neutral (wheels) silhouettes homogenized regarding low-level visual properties to 36 participants. Stimuli were displayed at fixation and at four peripheral locations to test the parvo-/magnocellular involvement. Spiders at fixation elicited greater peak-to-peak amplitudes than wheels in the N40 (peak at 39 ms from stimulus onset) - P80 (80 ms) tandem; this effect was not explained by N40 or P80 separately. Source estimation located V1 as underlying both N40 and P80, although probably reflecting different visual processing stages. Peripheral stimuli did not elicit significant effects. These results are compatible with the involvement of visual, low-order, thalamic and/or extra-thalamic nuclei in the ascending visual route, but not of the amygdala, in initial - albeit rudimentary- detection of emotional stimuli. Considering that stimulus evaluation is a multi-stage process involving different neural systems, the indubitable evaluator role of the amygdala (and of other brain areas, as the insular and orbitofrontal cortices) would take place in later phases. Additionally, present findings support those from previous studies showing cognitive and/or affective modulation of early (<100 ms) ERP components.

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Predictor Measures in Selection of I/O Practitioners: Evidence-based Personnel Assessment

The present research paper aims to identify the relevant predictor instruments and methods for selection of I/O (industrial/organizational psychology) practitioners. The present literature shows that many organizations focus less on using empirically validated job-related assessments and methods in selecting the right candidates. Growing body of research evidence reveals that many organizations use the wrong psychometric assessments in the wrong way which costs approximately one year's salary for the wrong hire. Although the organizations benefit from making the hiring systems cost-effective, there are huge returns for organizations in increasing the predictive accuracy and job-relatedness of their personnel selection and assessment tools to make the right hire thereby making the system legally defensible. For making hiring systems valid and job-related, focusing on choosing the right predictor measures i.e., selection assessment instruments and methods is as important as identifying the accurate job performance (criterion) measures. The present research paper presents the evidence-based methodology to select the relevant predictor assessment instruments and methods for measuring the criteria of job performance empirically derived through job analysis. Using an assessment matrix, mapping the relevant predictors to the job performance criteria while considering the psychometric properties of the proposed predictor assessment instruments and methods, the relevant predictor measures can be empirically chosen to be used in personnel selection. In developing the assessment matrix, job performance criteria were derived from job descriptions of I/O practitioners using NOC (National Occupational Classification, Canada) and O*NET (Occupational Information Network, United States) websites which were then matched with the predictors such as assessment instruments like cognitive ability test, emotional intelligence test, personality assessment, interest inventory, and other methods like behavioral description selection interview, self-assessment, structured reference checks to identify the most relevant predictor measures. Further the research overviews the current literature to determine the steps in establishing the criterion-related validity, adverse impact, incremental and differential validity of the predictor assessments and methods. This research study has implications in supporting the

selection process of I/O practitioners and other professions by providing an evidence-based approach to personnel selection and assessment. The research further proposes recommendations for future research in evaluating the effectiveness of the identified predictor measures in selection of I/O practitioners thereby encouraging evidence-based practice in personnel and selection and assessment.

Claudia Simone Dorchain

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Exploring the Criminal Mind: CKM, the New Psychometric Method

The presentation deals with innovative psychological test theory in the context of forensic research and criminological issues. The aim is to establish a link between the speech patterns of criminal personality disorder perpetrators and the risk of danger or recidivism by assuming the hypothesis that speech patterns provide information about the degree and type of neuroticism or sociopathy.

This lecture is based on research started at the Institute of Criminal Profiling and the Institute of Business Psychology in Germany and has been the subject of several recent trainings. Within the ATINER conferences it is a logical continuation and preliminary conclusion of a three-part series of lectures entitled Crime as Language. The three-part series started in 2021 with Socrates and Protagoras in antiquity as antagonists of rhetorical eristics with an outlook on Noam Chomsky's methods of mass manipulation, which also uses sophistry. The second part dealt in 2022 with the language of crime using the example of Georges Bataille's fictional prototype called "sovereign", who uses verbal and non-verbal acts to skillfully intimidate his opponents, with a current reference to the Ukraine war and its aesthetic representation in the media.

The third and local part 2023 illuminates the connection of spoken and written language as an indicator for delinquent and psychopathic behavior patterns, whereby the lecture is transformed from the philosophical department into the psychological one because of the test-theoretical basics.

Here we consider the following criteria: language as a character indicator historically and systematically, the criminal mind and its testing methods, why conventional testing methods fail in practice, and what "CKM", the new testing method yields in regards of validity and reliability. Beginning with the first insights into speech patterns and sociological classification in the philosophers of antiquity via Wilhelm von Humboldt to Sigmund Freud and his iceberg theory of consciousness and the associated indicator role of language, previous forensic test methods for the interplay of language and character like the Psychological Inventory of Criminal Thinking Styles (PICTS) or the Hare Psychopathy Checklist (HPC) are critically analyzed and sources of error in practice are revealed. We introduce CKM as a synthesis of

humanistic insights and empirical research, recognize its benefits and debate possible opportunities for improvement based on the current state of testing.

Aashna Doshi

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Executive Functions and Science Literacy among Young Children

Evidence from previous studies suggests that the cognitive/Cool aspect of executive functions relates to early science Literacy. However, the role of the emotional/motivational aspects of executive functions remains largely unexplored. As a result, the study aimed to include aspects of hot executive functions with the Cool executive functions and alongside unpack their associations to science literacy at ages 5 and 7, respectively. This association was furthermore analyzed while controlling for related factors. More specifically, the study included 1,931 children from the German National Educational Panel Study (NEPS) and analyzed the underlying association by performing hierarchical regression models. The models analyzed the role of (1) the cool executive components (2) the hot executive components along with the Cool executive components without, and (3) with controls to their developing science literacy (ages 5 and 7). The results indicated the Cool executive components of short-term memory and inhibitory control to be related to preschool science literacy over and above the effect of various covariates. However, the cognitive flexibility aspect of cool executive and the Hot executive aspects were found to be unrelated to preschool science literacy. The findings suggest that domain-specific intervention programs, especially regarding working memory and inhibitory control, could strengthen science literacy in the preschool period.

Antonio Duarte

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&

Niki Constantinidi

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**Traces of Knowledge and Use of Cues of Sensory
Processing in Ancient Greek Art:
A Study in Psychology of Art**

This study aimed to find evidence of the presence, in ancient Greek art, of cues (triggers) for sensory processes involved in the appreciation of visual arts, within the framework of the psychology of art. The presence of such cues in ancient Greek art can suggest the existence of knowledge about them, together with their use, already by ancient Greek artists. For the study, a sample of image reproductions of ancient Greek art (from the archaic to the Hellenistic period – ca. 7th – 1st century BC) was submitted to a thematic-content analysis. This analysis revealed the presence of all most relevant known cues that trigger specific sensory processes involved in visual arts appreciation. Results suggest an intuitive knowledge of these processes by ancient Greek artists (probably based both on personal experience and social sharing), which aligns with the seminal role of ancient Greek art both in the extended use of those cues in western art and in the modulation of a “western way” of appreciating art.

Ana Figueira

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Understanding Metaphors: Preliminary Results with Children 9-14 Years Old

We present the results of a study with a group of children aged 9-14 years old, on the understanding of metaphors.

The metaphor has been analyzed in various ways over the last few decades. It began to be seen as a resource to embellish the text very typical of the Aristotelian vision (Bailey, 2003) and, more recently, it has been seen beyond language, as a process that influences the way of thinking, acting and perceiving reality (Siman & Sampaio, 2021).

We describe the resource used, the TCM, Metaphor Comprehension Test for children aged 9-14 years and the results obtained with a sample.

In this study, 95 subjects of both sexes participated, aged between 9 (4th grade) and 15 (9th grade), from a school in the region of Aveiro. The results revealed that, with increasing age, the rating level of responses tends to increase.

The instrument used is in the process of gauging, or external validation, that is, meeting normative data, although it is already subject to adaptation procedures, as it is an original test in Italian.

We will give an account of the data obtained and analyzed which, to date, seem to us to be quite promising. Although still preliminary and exploratory, with a sample that is still not very representative and significant, the results appear to be not very distant from the averages obtained by their Italian counterparts.

Jean Fourie

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&

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Psycho-Social Support for a Prematurely Born Child with a Severe Learning Disorder

Children born prematurely are at great risk of neuro-developmental delays which manifest variously as physical difficulties, learning disabilities, attention deficits, hyperactivity, behavioural and social problems. Learning disabilities present a challenge for school counsellors and teachers as the child requires additional support. The challenge is more onerous in low socio-economic schools where therapeutic support is often unavailable as resources are limited and teachers are ill-equipped to meet the demands of the child. This case study explored the psych-educational support mobilised for a 10-year-old Zulu speaking boy, whose premature birth led to the diagnosis of a learning disorder. The study was conducted in a mainstream first grade classroom in Gauteng, South Africa. Data were collected from semi-structured, in-depth interviews, classroom observations, and medical reports. Content analysis revealed four broad areas for targeted support. Using a base-line diagnostic assessment, an individualised curriculum was implemented. Target areas were phonetics in the language of instruction, emergent reading, memory, and motor control skills. Poor attention and limited concentration were addressed using strategies of task pacing and focused task completion. Hyperactive behaviour was addressed with alternate activities and varied choice of stimuli. Lack of intrinsic motivation and poor self-esteem were addressed with positive reinforcement strategies and continual reassurance. Limited friendships and inappropriate social behaviour were addressed with overt teaching of conversation skills. Family support included balanced nutrition and independent living skills, understanding the life-long implications of the child, and integrating the special needs child into the local community.

Guste Gramaglia

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Systematic Analysis: Supporting the Well-being and Job Satisfaction of Firefighters

Firefighters are essential workers who exhibit bravery and selflessness in the face of danger. However, their job can be highly stressful, and understanding the reasons for their stress and factors that contribute to their job satisfaction is crucial for ensuring their well-being and effectiveness in their work. Firefighters may experience stress due to various factors, such as exposure to traumatic events, physical demands of the job, long working hours, and the need to make quick decisions in high-stakes emergency situations. On the other hand, they may be motivated by a sense of purpose and fulfillment that comes from helping others and making a positive impact in their community.

Job satisfaction among firefighters can be influenced by several factors, including organizational support, leadership quality, opportunities for professional growth, and the relationships they form with colleagues and the public they serve. Effective stress management techniques and supportive resources can also contribute to overall job satisfaction and well-being. Research on firefighters' stress, motivation, and job satisfaction can provide valuable insights into developing effective interventions and support systems to help them thrive in their vital work.

The profession of firefighting is one of the most risky, and repeated exposure to traumatic events can lead to serious psychological consequences, including mental health disorders, burnout, depression, and even suicidal behavior. It is recommended to implement critical incident stress management programs in all fire protection services to potentially save firefighters. Extended exposure to traumatic events can lead to chronic mental health disorders such as post-traumatic stress disorder, anxiety disorders, depression, and burnout, which can negatively affect their professional and personal lives. Thus, it is important to support their well-being and job satisfaction to ensure the overall effectiveness of emergency services and the safety of the public.

This systematic analysis aims to identify stress coping methods used by firefighters in their work by gathering and organizing all possible articles describing stress interventions in one place. The research question is focused on stress management methods used by firefighters described in literature from 2010 to 2022. The analysis followed the criteria set out in the "Preferred Reporting Items for

Systematic Reviews and Meta-analyses (PRISMA)" statement. The search for articles was conducted in five databases using specific keywords. Five inclusion criteria for articles were chosen, and 304 articles were excluded based on these criteria after primary screening.

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Victoria Banks

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&

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Using the Decision Ladder to Explore the Human Decision-making Processes of Search and Rescue Personnel during a UAV-equipped Mission

The uptake of Uncrewed Aerial Vehicles (UAVs) within the Search and Rescue (SAR) application is becoming ubiquitous owing to the way in which UAVs can support and extend SAR responses. During a SAR mission, UAVs are deployed to offer a birds-eye perspective of the search space which is captured by the onboard payload sensors and transmitted to human operators in real time. Currently, this data stream is processed manually by a Payload Operator to identify any hazards or signs of human life on the ground. However, the task of identifying and extrapolating information using the display technology is highly challenging. This is primarily due to the high levels of cognitive effort which must be expended over time to detect sightings that are likely to be camouflaged or obscured by the surrounding terrain. For this reason, system engineers are looking to develop image classification modules capable of autonomous object detection and labelling to streamline the information acquisition process from the UAV.

When looking to introduce novel functionality, such as an image classification module, it is important to consider how decision-making processes are currently undertaken by the team of human operators. In doing so, a greater understanding is yielded on how the current ways of working could be supported through further design intervention. The current work aims to capture these processes using the representational medium of the Decision Ladder. Rasmussen (1974) developed the Decision Ladder to define the different information processing activities undertaken by a decision-maker when identifying an appropriate course of action within a given situation. In order to develop the Decision Ladder for the UAV-equipped SAR scenario, knowledge elicitation activities were conducted using interviews with SAR personnel.

The final amalgamated Decision Ladder was populated using the responses from the interviews. The decision model demonstrated the

complexity of utilising UAVs to support a SAR mission due to the regulatory and technological constraints associated with the UAV. In addition, the importance of a validation activity was emphasised by the SAR personnel which would be conducted to determine the accuracy of any information presented by the automated system. Here, the decision ladder was able to identify the broad set of information aspects that would be reviewed by the human-UAV team. The subsequent knowledge obtained would be used to identify the relevance of a sighting and determine the most appropriate response using the limited resources available within the SAR environment. This insight provided from the Decision Ladder was used to propose a set of novel design recommendations that could extend the capabilities of the image classification module within the SAR context. Therefore, this work advocates the use of a user-centred design approach to support the development of technologies based on the tasks and cognitive processes of the end-user.

Simon Howard

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The Relationship between Gendered God Concepts and Gender Neutral Liturgy

Feminist theologians argue that religions that primarily conceptualize God as male legitimize and rationalize gender inequality and the social and political authority of men in society (Andersen et al. 2013; Valdes 1996). These arguments have recently been supported empirically (e.g., those who conceptualize God as a man are higher in gender system justification and ambivalent sexism; Howard et al. 2020). In response, some religious institutions have considered amending their liturgy to be more gender-neutral. The current study examines the relationship between gendered God concepts and support for gender-neutral liturgy and explores the roles of Gender-Specific System Justification (GSJ) and Ambivalent Sexism (AS) in this relationship.

Futoshi Kobayashi

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Student Evaluations on Positive Psychology Course: Pilot Test

Great teachers in psychology not only possess content-based knowledge in subject areas and pedagogical knowledge in education but also continue to refine their teaching skills (Richmond et al., 2014). Today, psychology instructors who teach undergraduate psychology courses are recommended to follow the scientist-educator model in order to improve their teaching skills. Scientist-educators set learning goals, design evidence-based learning activities, collect evidence for the effectiveness of the learning activities, and make adjustments in their teaching based on the evidence (Bernstein et al., 2010).

I taught a positive psychology course in the fall semesters of 2017, 2018, and 2019 and prepared various active learning exercises based on one of the best-selling textbooks (Peterson, 2006), empirical research results (Koo et al., 2008), some recommendations of a leading researcher in happiness study (Lyubomirsky, 2008), and my ideas. Students in the course evaluated the eleven active-learning exercises regarding four different domains: (1) degree of accomplishing the learning goal; (2) degree of ease of conduct; (3) degree of having fun; and (4) degree of wishing to keep the exercise in future courses, on a Likert-scale format from 1 (*not at all*) to 7 (*extremely*). They also gave any recommendations to the instructor so that the exercise would be more helpful for students to accomplish the learning goal.

There were three participants in Fall 2017, six participants in Fall 2018, and eight participants in Fall 2019. These participants ($N = 17$) ranged in age from 20 to 22 years ($M = 20.71$, $SD = 0.69$). They were all Japanese students (i.e., 13 women and 4 men) who at the time were attending a liberal arts college in Miyazaki, Japan.

One-sample *t*-tests (two-tailed) were conducted with a criterion value of 4 (i.e., neutral evaluations) regarding the four domains. Among all the 44 tests, all of them were evaluated positively. One (2.27%) indicated a small-size effect (Cohen's $d \geq 0.20$); five (11.36%) indicated medium-size effects ($d \geq 0.50$); and 38 (86.37%) indicated large-size effects ($d \geq 0.80$). Although a few exercises indicated small-size or medium-size effects in a certain domain, I decided to keep them because they achieved large-size effects in other domain(s). For example, both Exercise 2 ($d=0.34$) and Exercise 3 ($d=0.56$) didn't perform large-size effects in the degree of ease of conduct. Nevertheless, I

decided to keep them in the course because both of them were evaluated well in the degree of having fun (d of Exercise 2=1.30, d of Exercise 3=1.64).

Whereas this study offered tentative and empirical support for the appropriateness of the current exercises and useful recommendations for improvements, the sample was non-random and its size was small ($N = 17$). In addition, the Japanese students who participated in this study might be different from typical Japanese because they study liberal arts subjects in English at a particular institution. For example, they might score higher in the domain of extroversion than the other Japanese college students. Further studies with a larger number and more diverse groups of participants are recommended in the future.

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&

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Assessing the Suitability of Virtual Reality (VR) for Cognitive Assessment using Advanced Progressive Matrices (APM)

The use of virtual reality (VR) is becoming increasingly widespread in many fields. Its versatility is mainly related to the possibility of recreating different virtual spaces, including environments that are unsafe, difficult to reach, expensive or difficult to set up, or even non-existent.

The aim of this research is to assess whether cognitive performance related to problem solving changes according to the conditions of administration (real or virtual environment), thus determining whether a 'VR-related effect' can be found.

Problem solving was assessed with APM, in its two sets (48 items). The test, which was completely recreated and administered in VR (using Oculus Rift technology), was divided into two half-series of equivalent difficulty level, each of 24 items, and administered in both versions (VR and non-VR), before and after a short break, to check for any effects due to the sequence. The real and virtual environments were essentially identical.

The sample examined comprised 28 participants (aged 19-24). The subjects were successively randomly assigned to two independent subgroups (equivalent in terms of IQ), to allow each of them to be subjected to both versions of the APM, in a different order.

The results showed that the VR responses were comparable to those obtained in the real test, demonstrating the usefulness of VR for similar psychological assessment studies. Contextually, it emerged that the time taken by subjects in the virtual environment was significantly shorter than in the real one ($t=-5.05$, $p<.001$; Cohen's $d =-.955$).

The main limitation is due to convenience sampling, as well as the small sample size.

In conclusion, the spread of immersive VR technologies, combined with the ease of their integration with some important physiological measurements, suggest that VR-based assessment could represent the

future of psychological assessment, which would become more controllable and low-cost on a global scale.

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Psychological Features of Students' Self-Educational Activities in Extreme Conditions of War

The article is devoted to the problem of student youth carrying out educational activities in the conditions of war. The results of an anonymous empirical study conducted by the author among students of all courses of the specialty "Psychology" of the National University of Life and Environmental Sciences of Ukraine are described.

The research was conducted in two stages. The first is a month after the beginning of the full-scale invasion of the occupation forces on the territory of Ukraine. At the first stage, 75 students were interviewed using a Google-form questionnaire. The purpose of the first stage was to find out how students feel about the need to study in the conditions of war, what difficulties they face. The purpose of the second was to check how students' learning has changed over the past year (according to their own assessments), how much their cognitive activity has deepened and expanded, and what mental states accompany such changes.

It is noted that the living and working conditions of students (as well as the entire population of the country) became extreme in many respects with the beginning of the war. Despite this, student youth continued their leading activity – education. Moreover, a significant part of it was not just completing the minimum educational tasks for obtaining a diploma of education, but was conscientiously engaged in self-education.

The article analyzes how self-education and self-development of an individual are related to changes in his education and indicators of mental states. The expediency of providing opportunities for self-education and self-development for student youth in extreme conditions to preserve their psychological well-being is substantiated.

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**Temporal Course of Working Memory Dysfunction in
Fibromyalgia: An Event-Related Study**

Cognitive dysfunction has become a key symptom in the fibromyalgia syndrome. It has been considered by patients as a more disabling symptom than pain itself. Experimental evidence from neuropsychological and neuroimaging studies points out that cognitive impairment is especially robust when patients need to activate working memory processes. Although the scientific evidence on working memory dysfunction in fibromyalgia has grown in recent years, few studies have been aimed at identifying and delimiting the specific working memory subprocesses altered in these patients. Working memory processing consist of different stages that occurs extremely rapid involving mental operations such as encoding, temporal holding of information, inhibition, updating, and replacement. Event-related potentials is particularly suitable methodology for studying the temporal dynamics of altered neural networks involving cognitive processes, such as working memory, due to its high temporal resolution (in milliseconds). Thirty-six right-handed women took part in the experiment: eighteen fibromyalgia patients and eighteen healthy controls. Event-related potentials and behavioral responses were recorded while participants were engaged in a 2-back working memory task. Principal Component Analyses were used to define and quantify ERP components associated with working memory processes. Patients with fibromyalgia exhibited worse behavioral performance than the control group as revealed by their number of errors in the working memory task. Moreover, both scalp right parieto-occipital P2 and left parietal P3 amplitudes were lower for fibromyalgia patients than for healthy control participants.

Regression analyses revealed that lower P3 amplitudes were observed in fibromyalgia patients reporting higher pain ratings. Neural indices and behavioural performance suggest that encoding of information and, subsequently, context updating and the replacement, as a part of working memory subprocesses, are impaired in fibromyalgia patients. Studying the temporal dynamics of working memory by ERP methodology is a useful approach to detect specific cognitive impaired mechanisms in fibromyalgia. It could use to develop more adjusted treatments to each patient.

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Role of Time Perception in Automation

Our perception of time is key to our day-to-day functioning and interactions with the world. As an example, Time Expansion Experiences (TEEs) occur when a person's normal experience of time slows down or expands significantly. Previous research has associated TEEs mainly with accidents, but they can occur with altered states of consciousness. Coupled with this time perception is the need for the person to feel in control. Together these have implications for the design of products and systems that we use.

Human like to feel in control of technology; this is partly because if something goes wrong, they are in a better position to deal with it. This sense of ownership has become known as the Sense of Agency. This sense of control is thought to be able to be measured through the Intentional Binding Effect. This effect is defined as the temporal interval between a voluntary action generated by a person and its external consequence. A simple example might be turning on a light where flicking the switch will turn the light on. Given this need to feel in control, highly automated systems present the human operator and designers with a problem, namely, how do you design automated systems which maintain this Sense of Agency.

The Sense of Agency as measured by the Intentional Binding effect is a relatively new concept reported some 20 years ago by Patrick Haggard and colleagues. In our work on the design of automated systems, we have applied the Sense of Agency paradigm in an attempt to learn more about it in terms of various design constraints. A summary of four experiments on Sense of Agency will be presented. Results include: one, the finding that automation and mental workload degrade the Sense of Agency, that is, our time perception is longer; two, Intentional Binding is increased for voluntary actions, that is, time perception is shorter, when compared to constrained actions, and was degraded, that is, took longer, when participants were told WHAT action to perform, and WHETHER to act. The latter experiments were based on the What-When-Whether (WWW) model of intentional action

(Brass & Haggard, 2008). We are currently analysing more data on We-Agency and would hope to present this as Experiment 5 in the summary.

Given the importance of time perception in everyday activities, it follows that Sense of Agency plays a role. What is surprising is how it is not until relatively recently that the concept has been developed. In this sense, we are breaking new ground by applying it to the design of hybrid automated systems. The implications of our findings in this context will also be presented.

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Youth Problematic Internet Use in Relation to Social Interactions: The Effects of COVID-19 Pandemic

Problematic Internet Use (PIU) is an increasingly worrisome public health issue, especially among youth. PIU is characterized as an excessive use of the Internet alongside the inability to control internet use and may result in social, psychological and emotional difficulties (Fernandes, Rodrigues & Pontes, 2019). During the COVID-19 pandemic, students were enforced to stay at home under lockdown various conditions and in an isolated manner. Therefore, significant changes might be expected following the pandemic impacts on adolescents Internet use, including patterns of use, their dependence on the Internet and its psychological consequences and various impacts on their relationships with the social environment. The current study has explored the question of whether and what changes occurred in adolescents PIU phenomenon, under the influence of the presence of the COVID-19 pandemic, and in relation to their social interactions. For that purpose the study examined adolescents' internet usage and PIU, before and during the pandemic lockdown, including their interactions with their parents, educational teams and peers. The sample comprised of 348 adolescents aged 12-18 school students ($M=15.05$; $SD=1.43$). Of them 171 (50.95%) junior-high school students, and 177 (49.1%) high school students, who filled out the following questionnaires: Demographics, Internet frequency Use Questionnaire, Social Media Use Questionnaire (assessed problematic and excessive Internet use) and The Network of Relationship Inventory (assessed adolescents' relationships with parents, teachers, and peers, realting to: disclosure, emotional support, and self-satisfaction categories). Statistical analyses involved a paired t-test models to compare means of different research indicators over time, and for a more complex design the Generalized Estimating Equations (GEE) procedure was used.

Results revealed a significant increase in adolescents' internet usage from the pre-to during the pandemic lockdown time, as well as a significant increase in adolescents' PIU during the pandemic than before. As to youth social relationships before the pandemic, the adolescent-parent relationship were found to be significantly higher than adolescent-teacher and adolescent-peer relationships before the pandemic, but an increase was found in adolescent-teacher and in adolescent-peer relationships, from pre-COVID-19 to during the pandemic, while adolescents-parent relationships remained unchanged. Further results pointed to the significance of adolescents' relationships with their teachers and friends, as the relationships reinforcement during the pandemic lockdown may had served as a protective factor against an increase in the level of PIU. The study results are discussed according to key factors required for developing intervention programs for coping with youth PIU behaviors both during an emergency, such as the time of the pandemic, and during ordinary times.

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Pain Processes Modulated by Unconscious Emotional Pictures: An Fmri Study

Several theoretical proposals and experimental studies have repeatedly indicated that negative emotions are capable to enhance neural activity of brain regions involved in the affective processing of pain (insular cortex, anterior cingulate cortex, and prefrontal cortex) and its subsequent painful experience. Even though many painful experiences occur in emotional contexts that we are not aware of, most experimental evidence has mainly focused on the effect of conscious emotional stimulation on pain processing. Therefore, the aim of the present study was to investigate the role of neural networks mediating the influence of unconscious emotional information on the processing of painful stimuli using functional magnetic resonance imaging (fMRI). Eighteen healthy right-handed subjects participated in the present experiment. The fMRI activity was recorded while subjects were exposed to an emotional priming paradigm involving two types of emotional stimuli (neutral and negative) presented under both masked and unmasked conditions. The emotional stimuli were followed by a thermal stimulus (painful or nonpainful). Subjective pain-related scores were also measured. Statistical results showed an enhancement in neural activity within the posterior cingulate gyrus and precuneus for those stimuli presented below the threshold of awareness as compared to conscious stimulation. The type of emotional picture did not generate any distinctive changes in the activity of these brain regions in response to somatosensory stimulation (pain and non-pain). However, at the behavioral level, painful trials preceded by unconscious negative pictures elicited lower pain scores than those preceded by conscious negative pictures. The present results suggest that pain processing and perception under a non-conscious emotional context differ from the conscious perception. Posterior cingulate gyrus and precuneus have previously been associated with rapid attentional uptake of emotional

primes, which could prevent swift away attention from pain processing. Thus, pain perception would not be enhanced under an unaware negative emotional context. To the best of our knowledge, these findings are the first to show a neural representation of pain influenced by the conscious status of emotional contexts. However, further research is needed using different paradigms as well as different types of somatosensory stimulation.

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Orphans' Experience in School a few Years after the Loss of a Parent

The death of a close person, such as a parent, is a difficult occurrence that often leads to crisis. It can be especially difficult for children and adolescents, who are dependent on their parents. In addition to the individual and familial coping, the school environment can be a significant source of support for children and adolescents. Nonetheless, several studies have indicated that teachers have difficulty providing such support for these children and adolescents who are, therefore, at high risk for loneliness, depression, and low academic achievements. There is a lack of research on the experience in school of children and adolescents who have lost a parent from their own point of view. The current qualitative phenomenological exploratory study looks to fill this gap by identifying and understanding the subjective experiences in school of children and adolescents who have lost a parent. The research questions were: 1) What was their experience in school with teachers and educational staff after the loss of their parent?; 2) What was their experience in school with other students after the loss of their parent?; 3) What was the academic, social, and emotional experience in school after the loss of their parent?; and 4) What helped and what could have been done differently in school after the loss of their parent? The participants were 20 children and adolescents aged 9–18 who were members of a non-profit support organization for orphaned children and adolescents in Israel. The study was conducted in collaboration with the organization. Participation was voluntary and an informed consent form was signed by parents. Due to COVID-19 lockdowns, participants were interviewed via Zoom; interviews were recorded and transcribed verbatim. A phenomenological data analytic method was used. Preliminary results indicated the importance of the presence of at least one meaningful adult person in school for the participants. In addition, the participants demonstrated a desire to receive considerate and sensitive responses to their unique needs but

not to be pitied. Academically, about half of the participants experienced difficulties; socially, the main experience was one of feeling different than other students. The participants also expressed a wish for school personnel to be more informed about how to deal with loss among students and to receive appropriate training to help them. In conclusion, we discuss recommendations for how school staff can best support adolescents after the death of a parent.

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Does a Deficit in Executive Functions Explain Particularities in Social Information Processing in Young People with Mild Intellectual Developmental Disorder or Borderline Intellectual Functioning?

During development, the child multiplies interactions with different social partners and becomes able to respond to increasingly complex social situations (Zaouche Gaudron, 2015; Soto-Icaza, Aboitiz, & Billeke, 2015; Stuss & Anderson, 2004). One of the main steps in the development of social skills is the ability to solve problems in peer interaction (Denham, Bouril, & Belouad, 1994; Dodge, Pettit, McClaskey, Brown, & Gottman, 1986). The Social Information Processing (SIP) model (Crick & Dodge, 1994) illustrates the link that can exist between interpretations and cognitions that lead to a behavioral response. This model describes six successive steps in the resolution of a social problem: encoding of relevant elements of the situation, attribution of intention, clarification of the goal, search for behavioural strategies, evaluation of one's self-efficacy and finally, the behavioural response. Executive functions could allow, in a context of conflict between peers, to keep in memory the information of the situation in order to interpret it, to inhibit irrelevant elements of the situation or impulsive behaviors, and to be able to modify behaviors according to the interpretation of the situation (Jacques & Marcovitch, 2010). Some researches shows that young people with mild intellectual developmental disorder have deficits in executive functions but also difficulties in understanding and reacting in social interactions. The purpose of this research is therefore to study the role of three main executive functions (inhibition, memory, and flexibility) at each step of Crick and Dodge's model in a population with mild intellectual developmental disorder or borderline intellectual functioning. To achieve this goal, we created a video in which we deliberately introduce an ambiguous social situation between two young girls. We proposed a second similar video in which executive functions are more directly involved to understanding the scenario (addition of elements to be encoded in memory to understand the scene, distractors to be inhibited and change of intention to see flexible behaviors). In parallel, a questionnaire measuring executive functions in daily life was completed by the parents of the young participants in the study. We have analyzed the correlation between the results of the BRIEF-2 score and the use of executive functions at each stage of the

Crick and Dodge (1994) model in the video. The results of this study show two main interesting results. On the one hand, inhibition is involved from the first stage of the SIP and induces particularities in the other stages. On the other hand, a deficit in working memory does not lead to difficulties in retaining the elements in memory but results in particularities in the attribution of the intentions of others. In the first quarter of 2023, we will propose this protocol to typical youth to compare the developmental trajectory between these two populations. All of these results will be discussed in light to the two theories of intellectual developmental disorder: developmental delay or deficit in some of its components (Baurain & Nader-Grosbois, 2013; Nader-Grosbois & Thirion-Marissiaux, 2011).

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&

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Understanding Metaphors: A Study with Portuguese 4-6 Year-Old Children

We present the first metaphor comprehension data from 36 Portuguese children aged 4, 5 and 6, using the TCM Júnior, a metaphor comprehension test for young children, in its European Portuguese version.

TCM Júnior is an adaptation of its corresponding Italian acronym, which is in the process of being validated for the Portuguese population in this age group (4 to 6 years old).

The metaphor has been analyzed in various ways over the last few decades. It began to be seen as a resource to embellish the text very typical of the Aristotelian vision (Bailey, 2003) and, more recently, it has been seen beyond language, as a process that influences the way of thinking, acting and perceiving reality (Siman & Sampaio, 2021).

We describe the resource used, the Junior TCM, Metaphor Comprehension Test for 4-6 year olds and the results obtained with a sample.

The instrument used is in the process of gauging, or external validation, that is, meeting normative data, although it is already subject to adaptation procedures, as it is an original test in Italian. In this study, 36 subjects of both sexes participated. Although still incipient, because there are still few data, with groups by age and sex that are not equitable and significant, the results are promising.

We will report on the data obtained and analyzed. Although still preliminary and exploratory, with a sample that is still not very representative and significant, the results appear to be not very distant from the averages obtained by their Italian counterparts.

Lloyd Robertson

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**The Evolved Self:
Mapping an Understanding of who we are**

This presentation, based on a book with the same name (Robertson, LH, 2020, University of Ottawa Press), describes a process of mapping the self that can be used in psychotherapy, but also has potential research application in political, religious, humanist, cultural and gender studies. Using units of culture called memes, I will illustrate the selves from both collectivist and individualist cultures including the selves of people who were in psychotherapy at the time the maps were constructed, and some who were not in psychotherapy. The presentation will include a psycho-historical account of the evolution of the self, an examination of the experience of self in collectivist cultures, and the description of a paradigm of the self from which psychologists invariably operate. The presentation will include a discussion of the essential characteristics of a fully functional self that results in a capacity for objective observation and forward planning not enjoyed by our ancestors. The presentation concludes with a discussion of potential societal threats to the functioning of this culturally evolved self.

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A Process Model of Constructive Psychological Aging

The past two decades have witnessed substantial attention to promoting well-being in later life, including major initiatives by the EU, UN, and World Health Organization (WHO), among others. These efforts reflect growing recognition of the importance of physical and social environments for healthy well-being at all ages, and especially in later life. However, the conceptual and empirical basis for such efforts is not well developed, and healthy aging has too often been described using age-inappropriate criteria that ignore normal life-span developmental processes and decontextualize individuals from their physical and social environments. Of particular concern is the lack of connection to seminal work on adult development and environmental gerontology, including the substantial body of literature on the processes by which individuals and environments change over time.

This paper presents a Process Model of Constructive Psychological Aging that identifies key age-related developmental processes in six domains. This Process Model is based on an integration of existing evidence from life-span developmental psychology, biology, and environmental gerontology, based on research by the author as well as others. By contextualizing individual development in relation to physical and social environments, it becomes possible to consider environmental pathways which can foster or inhibit optimal functioning and psychological well-being among older persons and throughout the life course. The presentation will consider potential implications for lifespan developmental psychology research and theory, key conceptual and empirical challenges affecting the future of the field, as well as implications for creating aging-friendly communities which foster community members' life-long psychological well-being.

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Fast Sensorimotor Learning in Middle-Aged Adults

Cognitive training offers a potential approach for the prevention of cognitive decline in later life. Repetition of targeted exercises may improve, or at least preserve, both specific domain and general cognitive abilities by strengthening neural connections and promoting neuroprotective processes within brain networks. Importantly, middle-aged adults have been omitted from the cognitive training literature. In this experiment, we investigated short-term training (1 session) on a perceptual-cognitive-motor task in middle-aged adults. Furthermore, we examined the functional and structural neural correlates of this training. Twenty-one healthy middle-aged adults between the age of 40 and 50 years underwent one scanning session during which they learned and performed the perceptual-cognitive-motor task. We compared performance and functional imaging on the Early and Late Learning phases of the task. We used diffusion MRI to examine baseline microstructural variation in the brain in relation to training outcome. The diffusion indices included fractional anisotropy (FA), mean diffusivity (MD), neurite density index (NDI), and orientation dispersion index (ODI). We found a significant improvement in performance following training on the task. There were also significant training-induced changes in functional activity in cortical and subcortical brain regions. Furthermore, significant correlations were found between the diffusion indices of FA, MD, and ODI and training outcome. These results show fast neuroplasticity in the middle-aged brain, and that variation in brain microstructure underpins fast motor learning.

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Virtual Reality Cognitive Behavior Therapy for Flight Phobia – Identifying Factors that Impact Effectiveness

Approximately 40% of the population report fear of flying while 2.5% suffer from flight phobia. However, approximately 20% of fliers depend on sedatives or alcohol.

Exposure therapy with cognitive components is effective in the treatment of flight phobia, but exposure is costly and difficult to control. Virtual Reality Cognitive Behavior Therapy (VRCBT) is advantageous in reduced costs and increased control over exposure, but VRCBT efficacy varies among clients. One parameter that increases VRCBT efficacy is Presence. Our lab has conducted numerous research projects to elucidate the main factors which increase presence. The present study draws on our previous research in a further attempt to elucidate these factors.

We have shown that Pre Therapy Anxiety Level, Immersion, Vividness of Imagery, Empathy, Locus of Control and Sensory Processing Profile are important factors predicting both level of Presence, as well as effectiveness of therapy. In the current study, we examined these combined factors in order to further explicate the optimal VR user profile.

Thirty clients aged 12-60 received 10-24 sessions of flight VRCBT, filled out pre, post and follow up questionnaires, two failed to respond to follow up questionnaires.

Questionnaires: three fear of flight FAM, FAS, QAF, two presence IPQ, PQ, Immersion ITQ, Vividness of Imagery, Empathy, Locus of Control, Sensory Processing Profile, Depression.

The VR flight program was developed by Virtually Better.

We found large significant ($p < 0.001$) reductions on all flight measures (effect size 0.686 -1.213) from pre to post, but no significant differences from post to follow up. Significant reductions occurred in

depression ($t=6.92$, $p<0.001$) from pre to post, no change from post to follow up.

Results of multiple stepwise regression on fear reduction were large and significant, $r = 0.496 - 0.802$ and $r^2 = 0.25 - 0.61$, $p<0.01$ to $p<0.001$. Large significant results were found from pre to follow up $r^2=0.176 - 0.512$, $p<0.05$ to $p<0.01$. Higher pre-therapy fear scores, higher levels of immersive tendencies and higher levels of presence resulted in larger therapy gains.

Stepwise multiple correlations were conducted on each presence measure, only half of the presence measures produced significant correlations. Pre-therapy fear scores proved to be the most significant variable. Higher pre-therapy fear measures, lead to higher presence scores, supporting efficacy of VRCBT for flight phobia.

We attempted to identify the optimal VRCBT user profile. We found that higher pre therapy fear results in increased presence ratings. In addition, vividness of imagery and sensory seeking are important variables. However, we failed to find significant correlations between Immersion and Presence. Thus the effect Immersion has on fear reduction does not operate through Presence. An interesting finding was that for each fear measure, either Presence or Immersion entered the multiple regression, but not both. Perhaps increasing Presence is crucial for those low on Immersion, and less important for those high on Immersion Therefore, methods to increase presence continue to be an important, yet elusive, factor in treating phobia using VR.

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Understanding Dimensional Problems in Big Five Questionnaires by Combining a New Variant of State Trace Analysis with Qualitative Methods

Without unidimensionality, measurement is impossible, but this fact is often neglected in psychology. Although factor analysis provides information about dimensionality, it has several untestable assumptions and can often lead to erroneous conclusions. Hypotheses about dimensionality can be tested more appropriately with state trace analysis (STA), a rigorous method that has already resolved several prominent problems in cognitive psychology. STA is based on a mathematical proof showing that non-monotonicity between dependent variables (e.g. items of a questionnaire) implies more than one latent dimension. Using STA, it has been previously shown that Big Five questionnaires typically contain items that violate unidimensionality within certain factors. Thus, current Big Five questionnaires are, strictly speaking, not based on five dimensions.

In this paper we study a new variant of STA to better understand the semantic and conceptual contradictions of the Big Five structure. In our approach subjects are instructed to compare themselves to a familiar person on hypothetically unidimensional items. They have to indicate whether the statement of the item is more likely to apply to them, the familiar person, or to both equally. These ordinal comparisons are sufficient to identify subjects with answering patterns that cannot be explained by a single latent dimension. These subjects are ideal interview candidates to better understand the underlying reasons for dimensional problems.

We tested the new approach using previously identified problematic items of the factors extraversion and agreeableness from the IPIP-NEO-120 questionnaire. Ten subjects compared themselves to a familiar person and were subsequently interviewed to determine reasons for unidimensionality violations.

The results show that nine out of ten subjects answered at least some items inconsistently. The unidimensionality violations were mainly caused by conceptual problems between facets and by ambiguous wording of the items. For example, many inconsistencies

occurred between the facets trust and modesty, which are part of the agreeableness factor. Some subjects interpreted a low level of modesty as something positive, namely self-confidence or satisfaction with oneself, which is positively related to trust in others. As a result, trust and modesty are negatively related, which contradicts the five-factor model. Inconsistencies due to equivocal wording occur, for instance, in the facet activity level, which belongs to the factor extraversion. It was not clear to the subjects what activities the items referred to and they had different activities in mind when responding to the items (e.g. work, hobbies, social activities). Depending on the context, the answering patterns change substantially, so the facet activity level cannot be unidimensional.

Making the context more specific is an easy way to improve many items in the IPIP-NEO-120. Conceptual inconsistencies are harder to resolve, but in the case of modesty/trust, we suggest to modify the items so that modesty is not confused with low self-confidence. In general, our study shows that the new approach can be successfully used to identify dimensional problems of questionnaires and explore them in more detail. An application to other questionnaires is straightforward.

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&

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The Impacts of Resilience and Risk Factors on Psychological Well-Being of International Students in Canada during the COVID-19: The Role of Mattering, Anti-Mattering, and Belongingness

The horrible COVID-19 pandemic is a global challenge that represents a prolonged stress sequence involving an unprecedented hazard to health and mental health. The increased death rates by the threatened virus and the feelings of loneliness and social isolations caused by the measures of social distancing, lockdown and quarantine during the pandemic have impacted everyone, and some people (e.g., international university students) have unique challenges. The current research examines the issues faced by international university students in Canada during the COVID-19 outbreak. We anticipated that these international students in Canada, relative to domestic students, would have myriad stressors (e.g., separation from their home countries, safety concerns towards virus, language barriers, social and cultural differences, academic stressors, financial pressures, and social disconnection) and this would have a substantial negative impact on their well-being and life satisfaction.

Within this context, we sought to examine the need for students to have a sense of mattering and belonging. We focused on mattering as double-edged in that students with a sense of mattering would have a key protective resource linked with resilience and adaptability, while students without a sense of mattering would have profound risk (for related discussions, see Flett, 2022; Flett, Khan, & Su, 2019).

The current study uniquely examined the associations among mattering, anti-mattering, fear of not mattering, belongingness, loneliness, acculturation stress, social support, adaptability, and psychological well-being in 186 international students (98 males, 84 females) assessed online in the mid year of 2022 during COVID-19 pandemic. We measured mattering, anti-mattering (i.e., being made to feel insignificant and invisible), fear of not mattering, and belongingness in terms of their links with indices of mental health, loneliness, psychological well-being, and life satisfaction, but also assessed their acculturation stress, and discrimination and stigma on international students in Canada.

Correlational analyses confirmed that both mattering and belongingness were significantly associated with psychological well-being and life satisfaction, social support, and adaptability, and they were negatively associated with a host of factors, including acculturation stress, stigma, and loneliness. Social support, adaptability, and loneliness mediated the link between mattering and psychological well-being. Acculturation stress mediated the links that mattering and belongingness had with psychological well-being. In addition, anti-mattering, fear of not mattering, and low belongingness were associated with loneliness, acculturation stress, and stigma. Moreover, acculturation stress, loneliness and support mediated the link between anti-mattering and psychological well-being.

Our empirical findings confirmed that the protective resilience role of feelings of mattering and belongingness among international study but also the destructiveness risk role when anti-mattering and fear of mattering experiences seem to underscore acculturation stress, loneliness, discrimination and stigma. These findings highlight the impact of social and cultural factors on mental health and well-being of international students in Canada amidst COVID-19. It is essential to promote a sense of mattering and foster a sense of belonging to support inclusion and enhance the well-being of international students, while also limiting anti-mattering experiences and developing the capacity to cope with feelings and fears of not mattering.

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State-Trace Analysis Meets Psychometrics: Why the Big Five Questionnaires are not based on Five Latent Factors and how to fix them

Factor analysis is unable to answer one of the most important questions of psychological measurement: Can a set of items be logically reduced to a single latent factor? To conclusively answer this question, a largely ignored method from mathematical psychology can be used: state-trace analysis. The method offers a new perspective on psychological measurement by introducing a rigorous criterion for unidimensionality: monotonicity between item pairs. Items that violate the criterion within a factor can easily be identified. In this presentation, exemplary analyses for the five-factor model are demonstrated. The structure of two questionnaires, the International Personality Item Pool-NEO-120 (N=618,000) and the NEO Personality Inventory--Revised (N=857, N=500), is reconsidered. Results show that for all data sets, a five-factor model cannot be maintained without changing several items, which contradicts previous factor-analytical conclusions. This finding could be the beginning of a paradigm shift in psychological measurement, where factor analysis loses its dominance. To further popularize the method, it is discussed how research designs in psychometrics can be adapted to simplify the application of state-trace analysis.

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Adverse Childhood Experience in Barbados - A Pilot Study

Adverse Childhood Experiences (ACEs) refer to potentially traumatic events occurring during childhood (CDC, 2020, April 3). ACEs include physical, sexual and emotional abuse, emotional and physical neglect, and include household dysfunctions which affect the child's sense of safety and stability, such as witnessing violence in the home, having a family member attempt or die by suicide, growing up in a household where there is substance misuse, living with those who have untreated mental health problems, parental separation, or having a member of the household incarcerated (Boullier & Blair, 2018; Campbell, Walker & Egede, 2016; CDC, 2020, April 3).

The presence of ACEs is related to later psychological dysfunction - *a 2010 analysis of the World Health Organizations' World Mental Health Survey postulated that ACEs account for almost 30% of mental health disorders worldwide (Kessler et al, 2010)*. In addition, increased incidence and severity of ACEs shows a graded relationship with physical disease in adulthood, such as heart disease, cancer, chronic lung diseases, and liver disease (Campbell, Walker & Egede, 2016; Felitti et al, 1998; Iniguez & Stankowski, 2016).

Published research on the impact of ACEs in Barbados and the wider Caribbean is limited. Though a recent systematic literature review found only 15 studies exploring ACEs in Barbados published in the past 20 years, the literature found strong associations between ACEs and poor physical and mental health, persisting into adulthood (Trotman, 2021). While ACEs have a significant and long-term consequences, interventions exist that can mitigate their effects. Previous Caribbean research has indicated that the major blocks to curbing violence in the family are insufficient research, ineffective policy, and lack of public-health interventions (Jeremiah, Quinn & Alexis, 2017). Before creating effective policy and interventions however, we need a basic understanding of the incidence of ACEs within the region.

This pilot study aims to determine the incidence of Adverse Childhood Experiences in a Barbadian population, by administering the Adverse Childhood Experience Questionnaire (Felitti et al, 1998), and the Childhood Trauma Questionnaire Short Form (Bernstein & Fink, 1998; Bernstein et al., 2003) to participants. In addition, the World Health Organization Quality of Life Brief Version (WHOQOL Group, 1998)

measure will be used to explore participants self-reported physical health, psychological health, social relationships, and environment.

John Trougakos
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COVID-19 Anxiety: Exploring its Impact on Employee Work and Personal Outcomes

The COVID-19 pandemic has impacted both the personal and work lives of people across the world. In particular, employees have, and are, experiencing considerable challenges with anxiety as they have grappled with this unprecedented situation. In this paper, we present a study exploring the implications of COVID-related anxiety for workers. We conducted a multi-wave longitudinal study in which we examined the impact of participants' COVID-19 health anxiety on their emotion regulation and self-determination need satisfaction. In addition, we explored the implications of need satisfaction for workers' effectiveness on the job and at home, as well as the impact on their overall personal well-being. We also examined how hand washing, which was strongly encouraged early in the pandemic, served as a coping behavior that helped to mitigate the negative effects of COVID-19 health anxiety. Overall, our model was supported, as COVID-Anxiety was positively related to effortful emotion regulation which had negative implications of need satisfaction. Ultimately, need satisfaction was related to home engagement, work effectiveness, and personal well-being. Finally, the link between anxiety and the downstream variables was moderated by hand washing. Implications of the impact of the pandemic on workers, and specifically the impact of anxiety experienced during the pandemic, will be discussed.

Sandra Velez-Candelario

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**Family Organizational Basics:
Leadership, Communication, Environment, and Culture**

Family as a socioeconomic organization have the responsibility to be effective and productive even in bad times like this pandemic era named COVID-19 virus. Families first goal is pursued happiness sharing affectivity within their human capital at home and without food, shelter, air and oxygen that is not possible. This book is a scientific construction that include the explanation about the basic organizational needs that any organization needs to be productive and functional including the family. The book, *Family Organizational Basics: Leadership, Communication, Environment, and Culture*, is the first academic document that introduce openly the organizational psychology to the family organization. These four areas according with the organizational and management theories should be functional to receive the best respond from the human capital that is managing in any organization. This book is a scientific analysis about how the four areas of the organizational behavior works in the household setting and how those impact the daily lives of the family members increasing or decreasing their daily productivity.

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Interdisciplinary Encounters between Health Professionals Assessing Torture Victims

In the last decade, the presenters - two clinical psychologists, a social worker, and a medical doctor - conducted evaluations of African asylum seekers and Palestinians alleging torture. We assessed clients as part of an interdisciplinary forensic team of volunteers operating in the frame of the Public Committee Against Torture in Israel, in a socio-political environment in which this kind of work is not generally accepted.

The assessment of alleged torture victims is a complex endeavor, performed according to the Istanbul Protocol, the United Nations Manual on the Effective Investigation and Documentation of Torture and Other Cruel Inhuman and Degrading Treatment or Punishment. Assessments are done jointly by couples of a physician and a mental health professional, who, during the evaluation, encounter a narrative of severe psychological and physical trauma as displayed by the torture survivor. This encounter can arouse intense reactions toward the narrative, the victim, or the other health team member, complicating the collaboration.

This presentation demonstrates the complexities of the interdisciplinary encounter between physicians and mental health professionals interviewing traumatized torture survivors. The study employed introspection and dialogue between the presenters about our experience in this field, after which we discussed findings with a larger group of experts.

We found three recurrent themes in the encounter between physicians and mental health professionals that created tension and impaired efficiency. The foci of difficulty were a) discrepancies in the professional culture and norms of health and mental health professionals, b) power differentials between the clinicians stemming

from variables like profession, seniority, experience, and gender, and c) countertransference issues vis-a-vis clients or between the clinicians. These themes will be exemplified and discussed while shedding light on the complexities of the situation in which mental health professionals and physicians perform joint evaluations of victims of severe manmade trauma.

Guidelines can help recognize and defuse possible areas of tension and avoid conflict. We will provide recommendations for making the interdisciplinary encounter more efficient. These recommendations focus on three mechanisms, which are: a) investing in team building by developing trust between the clinicians, b) detailed planning of the assessment, and c) effective communication before, during, and after the assessment.

This paper is relevant to health and mental health professionals assessing torture victims in specific and interdisciplinary teams working with victims of manmade trauma at large.

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Parent Involvement in Special Education: Testing a Theoretical Model of Motivational Factors

High school students with disabilities experience poor post-secondary outcomes in college, employment, and independent living as compared to their typically developing peers. Parent involvement may significantly improve the postsecondary outcomes for youth with disabilities and improve the likelihood of their employment after graduation. However, limited studies have investigated the psychological and contextual factors that explain the reasons parents become involved within the special education context. Understanding these factors is crucial for assisting researchers and practitioners in developing interventions designed to increase parental involvement, which may benefit the long-term outcomes of youth with disabilities. The purpose of this study is to examine the relationships between parents' psychological motivational beliefs, relationship with their child's school, and perceived life context with their involvement in their children's learning and transition planning. A sample of 94 parents were recruited from school districts and federal parent training organizations across the United States to participate in a web-based survey. Institutional Review Board approval was obtained prior to recruitment from these organizations. Majority of respondents identified as White (53%), female (64%), and their child's birth parent (97%). Many of the respondents' children were between the ages of 16 to 18 (64%) and diagnosed with autism spectrum disorder (37%). The survey data was analyzed using regression analysis to estimate the significance of hypothesized relationships between independent and dependent variables. The independent variables were guided by Hoover-Dempsey and Sandler's (HDS) model, which argues parents will become involved if they (a) believe their involvement is requested and welcomed by their child's teacher and school, (b) believe their involvement results in positive learning outcomes for their child, and (c) believe they have enough time, energy, skills, and knowledge to be involved. Additional questions were based on parent-school trust, which describes the belief parents have regarding whether school and personnel will meet expectations of their position and be honest, kind, and dependable. The dependent variables included three forms of parent involvement in home (e.g., homework help), school (e.g., parent-teacher conferences), and transition planning (e.g., college and career planning). Preliminary results largely demonstrate the utility of the HDS model and parent-school trust in predicting parent

involvement patterns within the special education context. Furthermore, results suggest that school outreach efforts, such as teacher communication, and parents' trust in their child's school are particularly important for promoting parents' involvement efforts in schools, whereas parents' expectations for their child's future is important for their involvement in their child's transition planning. The implications and limitations of these findings, along with recommendations for future research will be discussed.

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