BSPID 2024 Conference Programme & Abstracts

Friday, 19th April, 9.00am to 6pm, Old Fire Station (G05), University of Salford

Keynote Speakers:

Professor Rebecca Elliott (University of Manchester)

"Interacting effects of life stress and mental health symptoms on neurocognitive function"

Dr Ashley Weinberg (University of Salford)

"'Lead us not into temptation...' - Getting a research grip on personality in politics before it's too late"
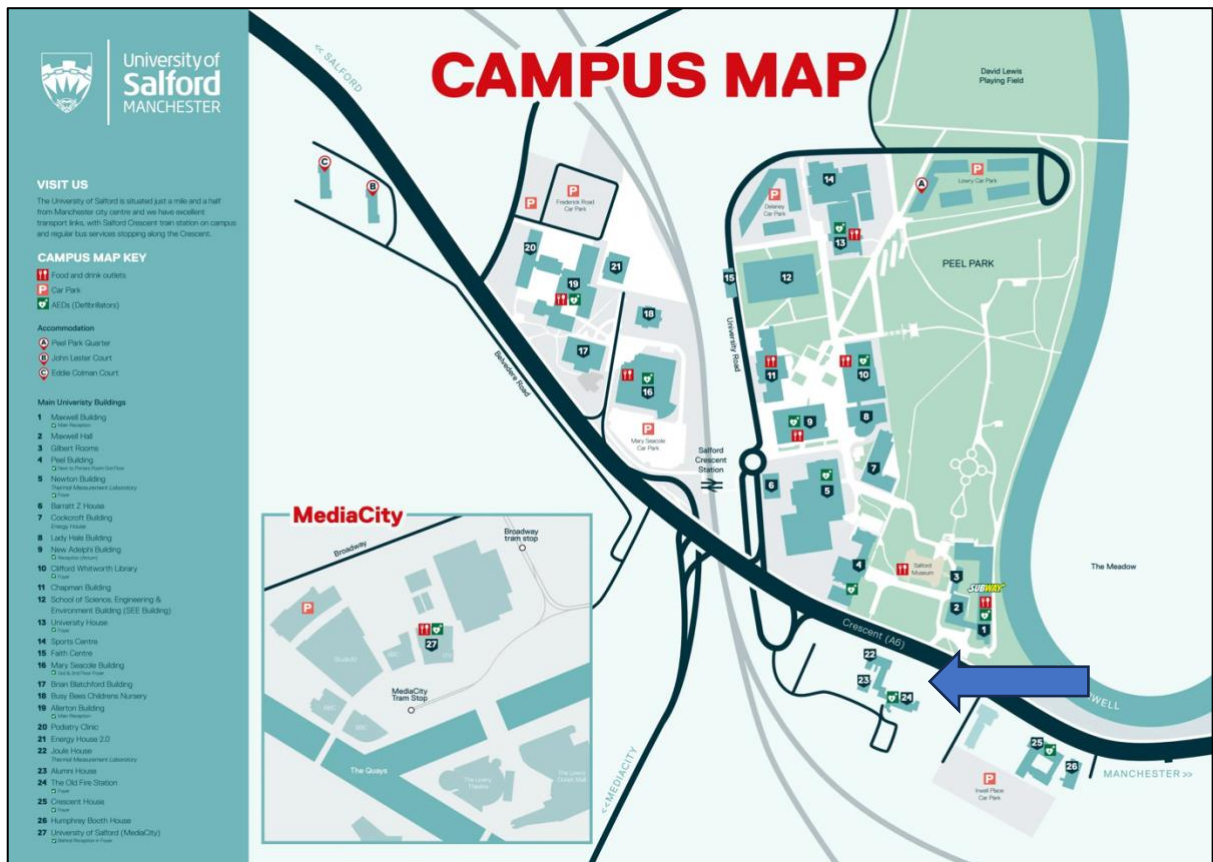
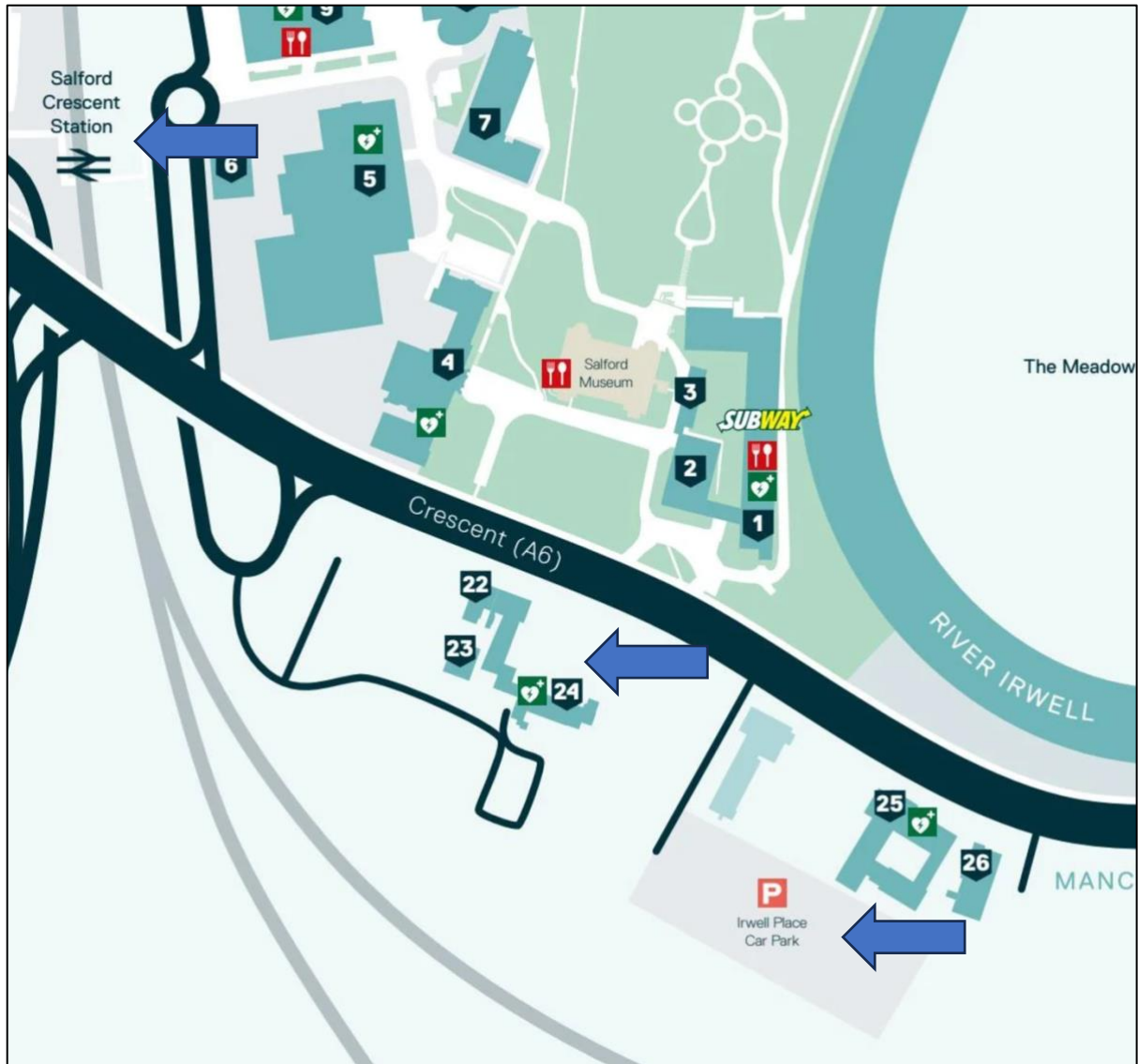|		
9.00		**Reception**
9.30		**Keynote 1:** **Professor Rebecca Elliott (University of Manchester)** Interacting effects of life stress and mental health symptoms on neurocognitive function
10.30		**Session 1: Trauma & Mental Health**
	10.30	**Professor Alexander Sumich (Nottingham Trent University)** Dissociation and noetic experience/belief as dissociable outcomes following psychological trauma
	10.45	**Ye Zhang (University of Edinburgh)** Examining the associations between common mental disorders and the big five personality traits: a comprehensive analysis using self- and informant reports in a large sample
	11.00	**Isaac Halstead (University of Bristol)** The role of religious belief in mental health in childhood, adolescence, and early adulthood
	11.15	**Satyam Chauhan (Brunel University London)** Chronotype and mental health: Sleep matters, but how, why, and for whom? A multi-national investigation from the UK, Germany, and India
11.30		**Break**
11.45		**Session 2: Personality**
	11.45	**Dr René Mõttus (University of Edinburgh)** Familial transmission of personality traits and life satisfaction is much higher than shown in typical single-method studies
	12.00	**Ross Stewart (University of Edinburgh; Wrexham University)** The personality puzzle of educational attainment
	12.15	**Megan Wright (University of York)** The socioanalytic model of personality maturity and its predictive power for life outcomes

	12.30	**Jennifer Firth (Nottingham Trent University)** Reinforcement Sensitivity (RS) profiles and their associations with different conceptualisations of psychopathic personality trait inventories: A latent profile analysis (LPA) approach
	12.45	**Ling Xu (University of Edinburgh)** Are regional personality differences and their PESH correlates robust in small countries? The case of Estonia
13.00		**Lunch & Posters**
14.00		**BSPID announcement - Dr Liam Satchell (University of Winchester)** An introduction to the BSPID Big Project
14.15		**Session 3: Psychometric assessment & scale development**
	14.15	**Sam Henry (University of Edinburgh)** Using multi-source and test-retest data to detect overlap within and between psychological scales
	14.30	**Borna Loncar (Nottingham Trent University)** Psychometric considerations of the Adverse Childhood Experiences Questionnaire
	14.45	**John-Paul Martindale (University of Edinburgh)** Development of the Faceted Dark Triad scale
	15.00	**Aleksandra Lambert (Nottingham Trent University)** Assessing maladaptive overcontrol: Development and validation of a new self-report measure
15.30		**Break**
15.45		**Session 4: Data Blitz**
	15.45	**Claire Fenerty (University of Manchester)** Investigating adaptive personality regulation's construct validity and predictive utility: Does the ability to express situationally appropriate personality predict performance across 4 tasks?
	15.50	**Nimra Mahmood (University of Salford)** Do social norms explain the relationship between personality and attitudes towards AI?
	15.55	**Anam Saifullah (Brunel University London)** Mind the gap: Trait equanimity attenuates emotional attentional blink in meditators
	16.00	**Kiran Garcha (Brunel University London)** Variability in visual perception and sensory processing sensitivity
16.10		**Comfort break**
16.15		**Session 4: Other Topics**
	16.15	**Dr Tanja Gerlach (Queens University Belfast)** Stability and change of ideal partner preferences: Evidence from a prospective study across 13 years
	16.30	**Dr Sam Gregory (University of Salford)** The Salford Nature Environments Database (SNED): An open access database of standardized high-quality pictures from natural and urban environments
	16.45	**Rachael Cheang (Brunel University London)** Do you feel me? Autism, empathic accuracy and the double empathy problem
17.00		**Keynote 2: Dr Ashley Weinberg (University of Salford)**

|		'Lead us not into temptation...' - Getting a research grip on personality in politics before it's too late
18.00		**Drinks Reception**
19.00		**Conference Dinner**

Location Details:

The Old Fire Station (24) is situated opposite the Maxwell Building. The University of Salford is easily accessible by train. The train station, Salford Crescent, is about a five minute walk from The Old Fire Station. If you are coming by car, please park at Irwell Place Car Park which is also a few minutes' walk from the conference venue. Parking costs approximately £4.10 all day which is payable through the PayByPhone app. The campus map can be found here.

Conference dinner information:

The conference dinner will take place at Thaikuhn, located in Spinningfields. There are multiple buses (8, 36, 38, 50, V1) travelling into Manchester with various stops on the A6 on the opposite side of the road to the conference venue. Alternatively, the restaurant is not far from the next train stop (Salford Central) or takes about 20 minutes to walk.
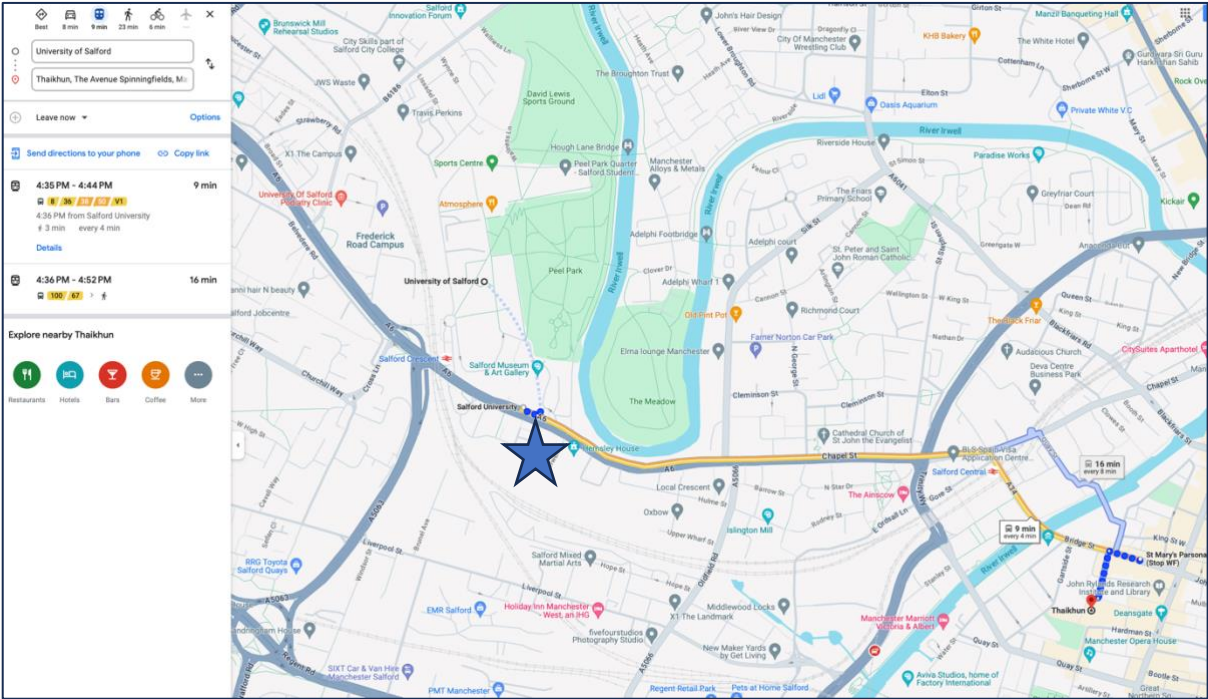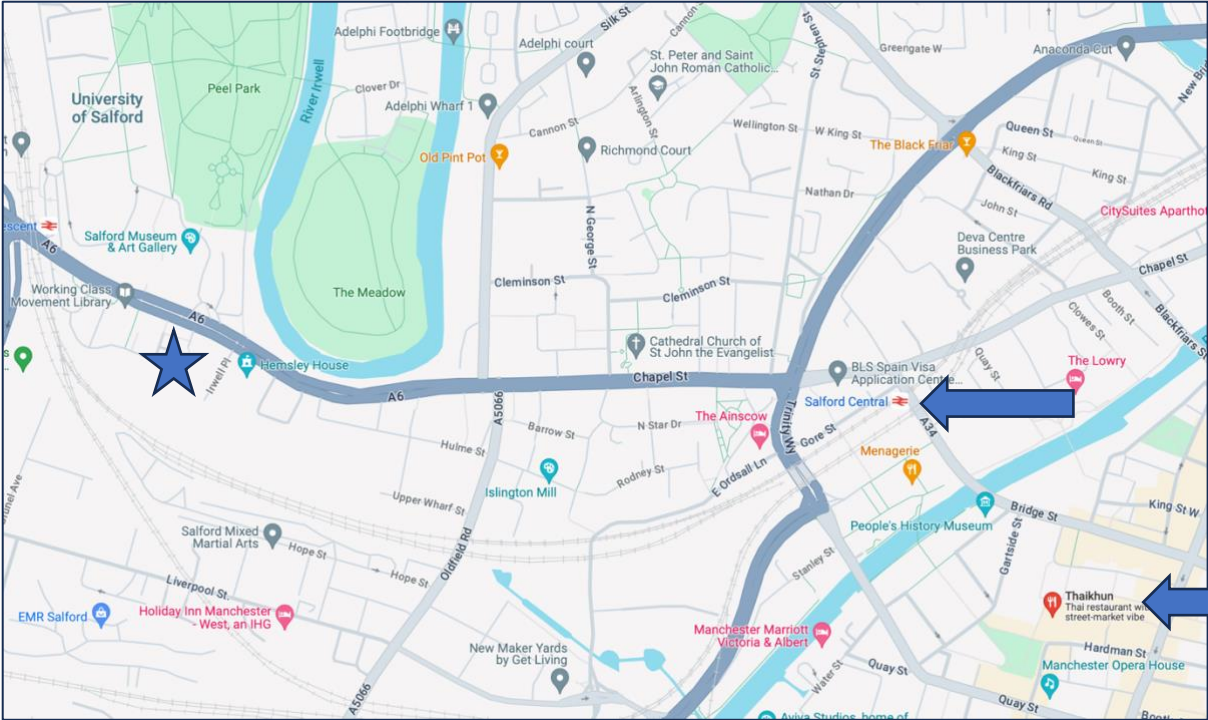
ABSTRACTS

Key note 1: Professor Rebecca Elliott

Interacting effects of life stress and mental health symptoms on neurocognitive function.

With a particular focus on depression, this talk will consider how the changes in cognition and brain function that have traditionally been associated with symptoms of mental health problems may, in fact, be associated with underpinning risk factors. People with depression have been reported to have different responses to emotional and social stimuli, for example emotional faces and social scenarios. These differences have been associated with altered patterns of brain response; imbalances between limbic and prefrontal regions are frequently reported. More recently, similar patterns have been observed in people exposed to significant stressful life events, particularly in childhood. This talk will present work from the University of Manchester that has attempted to disentangle the effects of early adversity and depressive symptoms on cognition. We have found a complex pattern with some changes related to symptoms but others relating to underpinning risk factors, independent of symptoms. Further, we have observed a similar pattern in other mental health problems where early adversity is also a risk. These findings have important implications for understanding the neurocognitive basis of mental health problems, and the importance of understanding individual risk factors as well as symptom profiles.

Biography:

Rebecca is a Professor of Cognitive Neuropsychiatry at the University of Manchester. She has over 25 years' experience in the development of cognitive tests and the use of these in conjunction with brain imaging techniques to assess neurocognitive function in a range of mental health problems, as well as the effects of interventions. Over the last 5 years, she has been particularly focused on understanding how early adversity confers increased risk of mental health problems across the life-course.

Key note 2: Dr Ashley Weinberg

Lead us not into temptation…Getting a research grip on personality in politics before it's too late!

The study of the psychology of politicians may not be a fashionable past-time. Indeed, it might be the last thing you would want to research…perhaps until one considers the impact politicians have on our daily lives. Whether as global leaders, national representatives or more locally, those who run for political office aspire to shape our world. Without efforts to understand their behaviour, motivations and well-being, we risk missing a key piece of the democratic jigsaw and in so doing, we may contribute unwittingly to unsatisfactory or even abhorrent outcomes.

This talk invites you to consider research in the field of individual differences conducted with serving politicians, focussing on their experiences of well-being, job features, as well as personality factors. In addition, the implications of research so far on personality in politicians will be considered, as well as the potential for future research and accompanying progress in democratic politics.

A century ago, arguably at a parallel period in world history, global challenges - including economic strife and political turmoil – provided fertile ground for autocratic leadership and populist policies. If this sounds familiar to you in today's world, then the psychology of politicians may be more deserving of your scrutiny than you thought?

Biography:

Dr Ashley Weinberg is a Chartered Occupational Psychologist, Fellow of the British Psychological Society and a Senior Lecturer in Psychology at the University of Salford, where he led the establishment of the Psychology Department. He was founding Chair of the Political Psychology Section of the British Psychological Society and has edited two books on psychological factors in politics: 'The Psychology of Politicians' (2011) and 'Psychology of Democracy: Of the people, by the people, for the people' (2022; both published with Cambridge University Press). In 1992, he conducted the first psychological study of UK MPs and subsequently his research has continued to assess the role of well-being, job features and personality factors in their performance, with a view to informing more effective democratic functioning. Similarly, since 2020, he has worked with the MPs' Staff Wellness Working Group, making recommendations for improvements to their working conditions and was called to give evidence to the Speaker's Conference of MPs on this topic last year. Recommendations for change made by Ashley and others have been accepted by Parliament.

Session 1: Trauma & Mental Health

Dissociation and noetic experience/belief as dissociable outcomes following psychological trauma

Professor Alexander Sumich (Nottingham Trent University) alexander.sumich@ntu.ac.uk

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Dissociation and noetic (paranormal) beliefs/experiences can, respectively, be considered as clinical and non-clinical outcomes following psychological trauma. The current study maps the relationship between trauma (childhood adversity, negative life events), dissociation and noetic beliefs/experiences, with depression, hypersensitivity, and sensory anomalies as mediators. These variables were assessed in n=276 participants (194 females; mean/sd age 30/12.9 years) who completed an online questionnaire. Following path analysis, both childhood maltreatment and negative life experiences showed direct positive associations with depression, unusual sensory experiences, and dissociation. In addition, negative life experiences (alone) was positively associated with hypersensitivity. The relationship between trauma and noetic beliefs/experiences, was fully mediated by hypersensitivity (both belief and experience) and unusual sensory experiences (belief alone). Depression was not significantly related to beliefs or experiences, but was positively associated with dissociation. Within the model, dissociation and noetic beliefs/experiences were not significantly correlated, supporting the idea of distinct clinical and non-clinical outcomes, differentiable by the presence of depression and direct associations with trauma. Childhood maltreatment and negative life-events appear in general to be additive in predicting some psychological outcomes.

Examining the Associations between Common Mental Disorders and the Big Five Personality Traits: A Comprehensive Analysis Using Self- and Informant Reports in a Large Sample

Ye Zhang (University of Edinburgh) yezhang369@gmail.com

Co-authors: Dr. René Mõttus and Prof. Michelle Luciano

We explored whether the presence of common mental disorders (CMDs) (i.e., anxiety and depressive disorders, alcohol use disorders) is associated with self- and informant-reported Big Five personality traits. We first explored how the diagnostic counts are associated with personality traits; secondly, we explored how time elapsed since the last diagnosis to the personality trait assessment date is associated with the traits, to assess possible state and scar effects. Our results suggest small associations between CMDs diagnostic counts and personality traits, with relatively strongest associations for neuroticism. All CMDs showed a possible state effect on neuroticism and similar but weaker state effects on extraversion and openness; conscientiousness and agreeableness were primarily associated with alcohol use disorder (AUD). The patterns replicated across self- and informant-ratings. The potential duration of the effects attributed to different scar effect sizes will be discussed in detail.

The role of religious belief in mental health in childhood, adolescence, and early adulthood

Isaac Halstead (University of Bristol) ba21471@bristol.ac.uk

Evidence from existing research suggests that religious belief is associated with a reduced risk of mental health problems. However, most research is based on US samples with a high prevalence of

religious belief and relies on single item measures of religious belief. These limitations may be hiding important differences in the association between heterogeneous types of religious (non)belief and mental health. Across 3 studies we examined the association between maternal religious belief/non-belief and offspring mental health in childhood and adolescence, and offspring religious belief and mental health in early adulthood. This study is based on data from a large longitudinal cohort study (ALSPAC, n = 14,541) and used a latent class analysis approach to identify religious groups antenatally, 9 years after birth, and 25 years after birth (n = 5235, 7714, and 4165, respectively). We identified 4 classes of religious (non)belief which we labelled the Atheists, Agnostics, Moderately Religious and Highly Religious. We found, when compared to the offspring of Agnostic mothers, the offspring of the Moderately Religious and Highly Religious mothers were at greater risk of depression (1.48 (1.17,1.87) and 1.40 (1.07,1.85) respectively) and the offspring of the Atheist mothers were at greater risk of ADHD (1.41 (1.08,1.85)) and conduct disorder (1.46 (1.04,2.05)) in childhood (age 8). In adolescence (age 18), compared to the offspring of Agnostic mothers, the offspring of Atheist and Moderately Religious and Highly Religious mothers were at great risk of depressive symptoms (1.31 (1.03,1.67), 1.26 (0.97,1.65), 1.30 (0.99,1.70) respectively), and the offspring of the Highly Religious mothers were at great risk of self-harm thoughts (1.43 (1.04,1.97)) and acts (1.31 (0.98,1.74)). When examining offspring religious belief and mental health in adulthood (age 28/31), we found when compared to the Atheist class, the Agnostic class was at greater risk of depressive symptoms (1.53 (1.11,2.10)) and anxiety (1.37 (1.02,1.84)). These results highlight important differences in the associations between religious (non)belief and mental health in non-US samples, and when different types of non-belief are examined in a sample. Future work will aim to examine the mechanisms that may explain these nuanced associations.

Chronotype and Mental Health: Sleep Matters, but How, Why, and for Whom? A Multi-National Investigation from the UK, Germany, and India

Satyam Chauhan (Brunel University London) Satyam.chauhan2@brunel.ac.uk

Co-authors: Prof Rakesh Pandey, Kaja Faßbender, Dr Ray Norbury, Prof Ulrich Ettinger and Prof Veena Kumari

There is increasing recognition of 'higher preference for eveningness' as an independent transdiagnostic factor of poor mental health. Here, we examine the eveningness-mental health relationship while also quantifying the potential mediating roles of poor sleep quality, relevant personality traits, and childhood trauma in young adults (18-40 years) residing in the UK (N=183, 99 Females), Germany (N=210, 143 Females), and India (N=282, 195 Females). We used self-report measures of diurnal preference, sleep patterns, mental health (depression, anxiety, stress), personality traits (extraversion, neuroticism, schizotypy, and impulsivity), and childhood trauma. Although we found small but significant associations between eveningness and mental health measures, there was no direct significant relationship. Instead, it was fully mediated by poor sleep quality and neuroticism (strongest effect), as well as cognitive disorganisation and childhood emotional abuse in India. Similar findings were observed in Germany for anxiety and stress; however, neuroticism and cognitive disorganisation partially mediated the eveningness-depression relationship. In the UK, the eveningness-mental health relationship was only explained by poor sleep quality. These results were consistently stronger in females than males across the UK, Germany, and India. Our findings provide new insight into the chronotype-mental health relationship, highlighting the importance of good sleep and psychological factors while determining interventions, especially in high-risk adult groups (e.g., with high neuroticism or emotional abuse, both of which are risk factors for affective disorders and psychosis) and reject the interpretation of chronotype as an "independent transdiagnostic factor" of declining mental health that is currently predominant in the chronotype literature.

Session 2: Personality

Familial transmission of personality traits and LS is much higher than shown in typical single-method studies

Dr René Mõttus (University of Edinburgh) rene.mottus@ed.ac.uk

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I argue that the degree of familial transmission of personality traits and life satisfaction is typically underestimated due to single-rater biases. The only realistic way to address these biases is to use multi-method designs and estimate the transmission in methods' shared variance. Using data from a sample of parent-offspring and sibling-sibling pairs and second degree relatives who rated their own personality traits and life satisfaction and were each rated by an independent informant, I show evidence that parent-offspring and sibling correlations are about 50% higher than typically shown. These data also provided little evidence that growing up together makes people more similar, but they did provide some evidence that genetic effects wear off with time. These data put personality traits' and life satisfaction's narrow-sense heritability at around 40%, up from about 25% in typical self-report studies. About 80% of life satisfaction's genetic variance was shared with that of personality traits.

The Personality Puzzle of Educational Attainment

Ross Stewart (University of Edinburgh; Wrexham University) ross.stewart@wrexham.ac.uk

Co-authors: Dr Drew Altschul, Prof Wendy Johnson and Dr René Mõttus.

Existing personality research into the relationship between traits and educational outcomes has primarily examined the role of traits in predicting academic achievement (i.e., academic performance within any given level of education). Less focus has, however, been directed towards the associations between personality traits and educational attainment (i.e., the highest level of education achieved). We investigated this question using a subsample of the Estonian Biobank (N= 20,995), by examining the relationship between self- and peer-ratings of personality and educational attainment. Given that recent research has shown an increased ability to predict outcomes through lower order traits, we compared the predictive accuracy of domains and nuances (represented by single items) using Elastic Net Regression analyses. Nuances were the stronger predictor of educational attainment in both the self (22.27% vs 2.72%) and peer-reported (19.62% vs 3.88%) data, even after controlling for confounding variables. To investigate if this relationship was driven by a few, potentially overlapping items, the top 10% of most strongly associated items were removed from the nuance analyses. After removing these items, the predictive power of self-rated nuances dropped to 16.97%, and to 12.04% for peer-rated nuances. Therefore, we present initial evidence that the relationship between personality and educational attainment may not be clearly captured by a few broad domains, but rather through multiple, lower order traits.

The socioanalytic model of personality maturity and its predictive power for life outcomes

Megan Wright (University of York) m.wright@york.ac.uk

The socioanalytic model of maturity considers both personality and maturity from the observer's and actor's perspectives. From the observer's perspective, mature individuals are seen as being emotionally stable, conscientious, agreeable, and socially confident. Traditional milestones of adulthood, such as marriage, parenthood, and career, involve roles people play to meet others' expectations and contribute to society. Having a reputation of possessing mature characteristics increases the likelihood of succeeding in these roles, which in turn increases the likelihood of holding self-perceptions of maturity. From the actor's perspective, an individual who sees themselves as emotionally stable, conscientious, agreeable, and socially confident should score highly on self-report maturity measures, regardless of their age. We tested the socioanalytic model of maturity in a US sample (N = 504, Age 21-75, MAge= 41) using two measures of personality: the Big Five (actor's perspective), and the Hogan Development Survey (HDS; observer's perspective). Our results supported the propositions of the socioanalytic model of maturity from the actor's perspective, as self-reported maturity correlated positively with Conscientiousness, Agreeableness, and Extraversion (r from .27 to .40), and negatively with Neuroticism (r = -.49). From the observer's perspective, self-reported maturity correlated negatively with HDS scales Excitable, Cautious, and Skeptical (r from -.31 to -.39), which suggests that mature individuals are even-tempered, decisive, and trusting. In regression analysis, scores on the self-reported maturity scale were predicted by lower Neuroticism, lower Openness, and higher Conscientiousness from the Big Five, and lower scores on the Imaginative and Cautious scales from the HDS, after age was accounted for. The Big Five personality traits (actor's perspective) explained an incremental 18% of the variance in the self-reported maturity scale after age was accounted for. and the HDS scales (observer's perspective) explained an incremental 19% of the variance beyond age. We also found that higher levels of maturity predicted career performance and success. Our study provides empirical support for the socioanalytic model of maturity, demonstrating that personality traits are systemically related to maturity after age is accounted for, and shows that maturity influences important outcome measures.

Reinforcement Sensitivity (RS) profiles and their associations with different conceptualisations of psychopathic personality trait inventories: A Latent Profile Analysis (LPA) approach

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Co-authors: Prof Alexander Sumich, Dr Emanuele Fino & Assoc. Prof Nadja Heym

The revised-Reinforcement Sensitivity theory (rRST; Gray & McNaughton, 2000) is a neurophysiological model of personality, comprising of the Behavioural Activation, Behavioural Inhibition and Fight-Flight-Freeze system. To our knowledge, no research has considered how distinct configurations of rRST subsystems relate to different psychopathic traits inventories. Two cohorts (N1= 622/N2= 639) completed scales assessing RST subsystems (Heym et al., *in prep*), different conceptualisations of psychopathy traits (SRP-III; Paulhus et al., 2015; LSRP; Levenson et al., 1995; TriPM; Patrick et al., 2009), Callous-Unemotional traits (ICU; Frick, 2004) and Reactive-Proactive Aggression (RPAQ; Raine et al., 2006). Latent profile analyses (LPA) resulted in five RST profile solutions in both cohorts. Distinct RST profiles showed differential associations to psychopathy/CU traits and aggression, whereby profiles with hypo-FFFS reported greater psychopathic traits in general, and hypo-BIS reported greater callous-affect, specifically. The

advantages of LPA to understand combinations of different reinforcement profiles in psychopathy and aggression will be discussed.

Are Regional Personality differences and their PESH correlates robust in small countries? The case of Estonia.

Ling Xu (University of Edinburgh) s2116779@ed.ac.uk

Regional personality trait differences have been found in several countries at different levels of granularity. These differences seem to be robustly related to regional political, economic, social and health (PESH) outcomes. Nevertheless, we are uncertain if such findings are generalizable to Estonia – a much smaller and sparsely populated country. Besides, previous research seemed generally exaggerating such differences and managed spatial data inappropriately. To address these challenges, we use data from Estonian Biobank (n = 72268) measuring personality with NP-100. We first map regional Big Five personality traits using Spatial Smoothing approach to address spatial dependency. Second, we test the correlations between regional trait differences and PESH outcomes. We find 1) personality trait differences are < 0.8 in T-scores at county level, and 2.94 – 4.48 at municipality level (similar to US at state level and UK at Local Authority Districts level); 2) there are robust correlations with PESH outcomes.

BSPID Announcement: An Introduction to the BSPID Big Project

Dr Liam Satchell (University of Winchester) liam.satchell@winchester.ac.uk

This presentation will introduce members of the conference to the BSPID Big Project Initiative. To support the work of BSPID members, enhance collaboration between member institutions, and promote robust, open, science, BSPID is launching a new scheme. The Big Project is a programme of work proposed by a BSPID member which BSPID, as a society, helps coordinate and promote across multiple institutions. Big Projects are led by the applicant team and then BSPID will help with reaching a wider audience who might help collect (or analyse) data from multiple locations. This talk walks through the application process and projects in BSPID's interest.

Session 3: Psychometric assessment & scale development

Items as quantities: A new approach for item-level personality research

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Both scientists and their audience like simple verbal narratives which is why latent trait models such as the "Big Few" are often favoured for their parsimony. However, many-dimensional approaches to personality that include little to no prior aggregation have been demonstrated to be less ambiguous and more predictive of numerous psychological outcomes. We propose a new approach to effectively summarise high-dimensional personality assessments which includes supplementing them with quantitative descriptions of items' verbal labels. Such descriptions can be derived from human judgements of items' content (e.g., ratings of ABCD components) as well as from computational text mining techniques (e.g., use of sentiment dictionaries). Using data on the 100 Nuances of Personality item pool (257 items, n = 737), we demonstrate how items' quantifiable properties can be utilised to succinctly describe personality scales and their associations with psychological outcomes. We conclude that parsimony can also be achieved in item-level personality research.

Using multi-source and test-retest data to detect overlap within and between psychological scales

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Co-authors: Dustin Wood, Dr David Condon, and Dr René Mõttus.

Determining how much two psychological scales measure the same thing is a fundamental issue in addressing jingle and jangle fallacies. It begins with accurately detecting the empirical overlap between scales (and, by extension, the items that comprise them). Typical correlation coefficients, estimated using data for two variables from the same source (e.g., self-report), are difficult to interpret as they may either inflate or attenuate the scales' empirical relatedness due to systematic and random errors. That is, psychologists do not have clear guidelines for evaluating the extent to which observed correlations are affected by these biases because single-source assessment does not allow for their estimation. Here, we describe and test a novel method for removing random and systematic biases from variables' correlations using self-other agreement and/or test-retest correlations. We found that both methods provided superior indicators of human-judged item similarity – especially at the high end of the correlation distribution, where detecting redundancy is most useful – and very rarely produced 'out of bounds' estimates of redundancy (i.e., $\hat{\rho} > 1.0$). Most importantly, high item intercorrelations regularly seemed to reflect more than semantic overlap, indicating non-trivial relations among traits: There is more to empirical associations than two items literally meaning the same thing. We discuss practical implications of this method for evaluating overlap between psychological constructs and underline the importance of assessing psychological constructs using multiple sources of information.

Psychometric considerations of the Adverse Childhood Experiences Questionnaire

Borna Loncar (Nottingham Trent University) borna.loncar@ntu.ac.uk

Co-authors: Prof Alex Sumich and Assoc. Prof Nadja Heym

The Adverse Childhood Experiences Questionnaire (ACE-Q; Felitti et al., 1998) is a widely used instrument for assessing early traumatic experiences, predominantly in epidemiological and health research. Many existing versions of the questionnaire, with varying numbers of items, included experiences, scoring, and response formats exemplify a lack of consensus on the types of adverse experiences that should be included, as well as the suitable psychometric approaches to the measurement and classification of adverse experiences. This study aims to provide further guidance on optimal approaches to measuring ACEs by performing CFA, PCA, and IRT/Rasch analyses on the 10-item version of the scale to assess its psychometric properties in a mixed sample of 519 participants. CFA provided support for both one and two-factor (childhood maltreatment and household challenges) structures. PCA indicated that ACEs should be classified into up to three groups. Grouping of ACEs was explored in relation to the trauma impact measured by the Impact of Events Scale-Revised (Weiss, 2007). Finally, Rasch analysis was employed to further examine the instrument's capacity and precision in construct measurement. Tests performed provided support for two different theoretical approaches to the outcome assessment. The predictive power of cumulative and severity-based approaches will be explored in relation to the trauma aftermath. Strengths and limitations of the instrument and each approach will be discussed.

Development of the Faceted Dark Triad scale

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Co-authors: Dr David J. Hughes and Prof Paul Irwing

Psychopathy, Narcissism and Machiavellianism, aka the 'Dark Triad', are comprised of common facets from the broad domain of antagonism or dis-agreeableness (e.g., callousness, deceitfulness) as well as facets unique to each. Assessments of the Dark Triad have typically neglected facet-level measurement, instead, adopting broad multi-dimensional scales. As a result, the literature remains unclear regarding the degree to which findings are substantive or reflect measurement idiosyncrasies. In contrast, three recent standalone scales (Elemental Psychopathy Assessment; Five Factor Machiavellianism Inventory; Five Factor Narcissism Inventory) developed using the basic-trait approach (i.e., combining relevant facets from the Five Factor Model to assess higher-order constructs) avoid these issues and provide numerous important innovations. However, because they were developed separately, simultaneous use would be problematic due to their length and three forms of redundancy: (i) identical scales are used in multiple measures, (ii) almost identical scales with different labels are used in multiple measures, and (iii) numerous ostensibly different yet highly similar scales that stem from the same FFM facet. The unintended consequence of each form of redundancy is construct proliferation and implicit (rather than explicit) construct overlap, which exacerbates confusion and issues of Jingle-Jangle. The current paper describes a multi-study empirical integration of these measures to develop a single set of unique facets that can assess the Dark Triad: the Faceted Dark Triad (FDT) scale. Study 1 consolidated the Elemental Psychopathy Assessment, Five Factor Narcissism Inventory, and the Five Factor Machiavellianism into a single measure: the Faceted Dark Triad (FDT) Scale. Study 2 examined the cognitive response processes that participants engage in when completing the FDT. Studies 3 and 4 examined the predictive validity of the FDT, finding that it evinces superior prediction compared to the measures it was derived from

and existing composite measures of the Dark Triad. Study 5 completed the first phase of FDT validation by demonstrating its reliability. The FDT provides comprehensive and theoretically coherent assessment of the Dark Triad and demonstrates superior psychometric properties compared to other measures.

Assessing maladaptive overcontrol: Development and validation of a new self-report measure

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Twitter/X handle: LambertPsych

Co-authors: Alex Lambert, Prof Belinda Winder, Christine Norman, Dr Laura Hamilton, And Adj. Prof Pedro Pires

Despite the prevailing belief that more self-control equated to better outcomes, a novel Neurobiosocial Theory for Disorders of Overcontrol now indicates that overcontrol – a personality style characterised by excessive control over behaviours and emotions – can lead to interpersonal and socio-emotional impairments and complex psychopathology. Preliminary evidence from clinical trials of Radically Open Dialectical Behaviour Therapy designed to address deficits of overcontrol encouragingly suggest that the intervention could be a viable way forward in treatment of maladaptive overcontrol. However, a lack of a valid assessment instrument specifically designed to identify maladaptive overcontrol and assess the extent of issues associated is hindering research and clinical progress in this area. The current research programme aimed to develop and validate the much-needed new assessment tool for overcontrol. Deductive and inductive methods were used to develop the initial item pool (190 items), content of which was validated using the expert judgement method and pre-tested using cognitive interviews. Internal structure analyses (exploratory factor analysis with $N = 600$) and confirmatory factor analysis with $N = 600$) of the refined version of the instrument (91 items) are currently being finalised. External validity and reliability testing will begin in early February 2024, with the final version of the measure estimated to be completed by the end of March 2024. This presentation will consider the rigorous psychometric process applied in the development of the scale, the results of the factor analyses, and the validity and reliability evidence. The implications for future research and treatment of overcontrol will also be discussed.

Session 4: Data blitz

Investigating Adaptive Personality Regulation's construct validity and predictive utility: Does the ability to express situationally appropriate personality predict performance across 4 tasks?

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Co-authors: Prof Paul Irwing and Dr David Hughes

Dynamic personality theories recognise that people tend to express personality traits that align with situational demands. This pre-registered study will test the structural and predictive properties of the Adaptive Personality Regulation (APR) Index, a novel measure of the ability to adapt personality to meet situational goals which was introduced by Irwing, et al. (2023). Core to the APR index is the difference between observer ratings of expressed personality and expert-rated 'optimal' personality assessed across traits and situations. This score provides an estimate of how successfully participants have matched their personality expression to situational requirements. In other words, the APR Index measures whether they have adaptively regulated their personality. Two-hundred participants will be recorded completing 4 tasks which require diverse personality expressions (presentation, group exercise, teaching, and critique). We will calculate APR scores using the APR Index, which measures how closely participants 'expressed personality' matches expert rated levels of 'optimal personality' (Irwing et al., 2023). Correlations between APR and participants' self-rated personality traits, functional flexibility, emotion regulation, and tested cognitive ability will be examined. In addition, we will determine the degree to which APR predicts task performance independently and offers incremental prediction over the other variables assessed.

Do social norms mediate the relationship between personality and attitudes towards Artifical Intelligence?

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Previous research has demonstrated that the Big Five Personality traits, namely openness, conscientiousness, extraversion, agreeableness and neuroticism, are variously associated with positive or negative general attitudes towards Artificial Intelligence (AI). However, less is known about what might explain these associations. In this psychometric online study, we examined whether social norms mediated the relationship between personality and attitudes towards AI within in a UK student sample. It is hypothesised that social norms will mediate the relationship between conscientiousness and a positive general attitude towards AI. Findings will be discussed after analysation of data. Future research should seek to assess attitudes towards AI in different industries. This will give a broader perspective thereby allowing more research to be conducted in development of more applications of AI.

Mind the Gap: Trait Equanimity Attenuates Emotional Attentional Blink in Meditators

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The human attentional system is able to handle a stream of incoming sensory stimuli, yet, has scarce resources. The temporal limitations of attentional system can be studied using the neutral attentional blink (NAB) phenomenon, thought to occur due to two stimuli competing for limited attentional

resources, whereby the processing of the first target stimulus (T1) reduces the ability to detect the second target stimulus (T2) if presented within 200ms - 500ms within each other. Emotional Attentional Blink (EAB) signifies reduced ability to detect T2 stimuli when closely preceded by emotional stimuli (T1), with the latter thought to capture attention, resulting in inattentional blindness of T2. Mindfulness meditation practice reduces both NAB and EAB by increasing attentional capacity and reducing attentional capture. In this study, we investigated whether higher trait equanimity (a state of non-attachment and non-reactivity towards present-moment experience), which can be enhanced through mindfulness meditation and other meditation approaches, is associated with better NAB and EAB performance in meditators and meditation-naïve individuals. A sample of 129 participants (75 meditators, 54 meditation-naïve individuals) performed the NAB and EAB paradigms, in addition to completing a self-report measure of trait equanimity (Non-Attachment Scale, 7-item version; Elphinstone, Sahdra, & Ciarrochi (2015), https://doi.org/10.31219/osf.io/ew4ns). Performance was assessed per lags (T1 - T2 intervals) of 200ms, 300ms, 500ms and 700ms, as indexed by response accuracy (RA) and reaction time (RT), as well as % RA reduction from T1 to T2 to quantify the attention blink magnitude (% AB). In meditators, lower % AB on the EAB task was significantly associated with higher trait equanimity (Lag 300ms: r = -.27, Lag 500ms: r = -.25, Lag 700ms: r = -.28). This is the first study to show that higher trait equanimity is associated with attenuated EAB performance in meditators, suggesting that non-attachment and non-reactivity underpin attenuated EAB in meditation practitioners, affording more efficient emotional processing resulting in reduced attentional capture by emotional stimuli.

Variability in visual perception and sensory processing sensitivity

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Introduction and Objective: Sensory processing sensitivity (SPS) is characterised by an individual's propensity for deeper cognitive processing, greater sensitivity to stimuli (e.g., light, sound, pain) and stronger emotional reactivity. Importantly, there is evidence to suggest these factors lead to increased likelihood of negative outcomes (anxiety, depression) in response to adverse life events such as childhood trauma. In our previous study, we observed a significant relationship between SPS, self-compassion, childhood trauma and psychopathology. As individuals with high SPS have a higher awareness of subtleties in the environment due to their cognitive processing ability and can become easily overwhelmed, the current study aims to explore the impact of induced stress/frustration on measures of visual perception.

Methods: A quantitative, online, three-part experimental methodology will be used to test two hypotheses: 1) There will be a significant difference between individuals with low and high SPS in visual perception performance, and 2) SPS levels and stress/frustration predict accuracy in visual perception tasks. The study aims to recruit 100 participants. In Part 1 all participants will complete a series of self-report questionnaires including the Highly Sensitive Person Scale (HSPS). In Part 2, participants will be randomly assigned to one of two groups: Low stress group – complete a simple search task (locate an object or item present in an image); High stress group – attempt a similar search task where the target item will not be present in the image. In Part 3 participants will be presented with Ebbinghaus Illusion trials and will decide if the central circle in the image on the right is the same size as the centre circle in the image on the left. Next, participants will be shown two consecutive images of indoor and outdoor scenes and will be asked to 'spot' what object has been removed. The accuracy of the tasks with the level of SPS will be analysed using ANOVA, ANCOVA and multiple regression analyses will be conducted.

Predicted Results and Conclusions: It is predicted: 1) Stress will show a negative significant impact on visual perception in individuals with high SPS, and 2) Individuals with high SPS and stress will significantly predict the accuracy of visual perception tasks.

Stability and change of ideal partner preferences: Evidence from a prospective study across 13 years

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Ideal partner preferences for traits in a romantic partner have been conceived as stable cognitive constructs. Longitudinal studies, however, that investigated the same participants' preferences repeatedly across time have so far been limited to relatively short retest intervals. In our study, we set out to investigate stability and change of partner preferences across 13 years and also examined participants' insight into how their preferences had changed. Across two time points, 204 participants from a community sample (Mage = 46 at T2) reported their ideal partner preferences. To investigate insight into preference change, at T2, we also assessed participants' perceptions of how their ideals had changed since the first assessment. We found a substantial mean rank-order stability and a considerable overall profile stability. Some ideal preferences changed over time and/or in relation to age and parenthood. We found some, but varying insight into how ideals had changed. Interestingly, participants had the most insight into how their preference for family orientation, a dimension often overlooked in previous research on partner preferences, had changed across the study period. Our findings substantiate the idea of ideal partner preferences being stable cognitive constructs, yet also suggest variability related to demands of different life stages.

The Salford Nature Environments Database (SNED): An open access database of standardized high-quality pictures from natural and urban environments

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Being in nature can help improve mental health and cognitive functioning. However, it is unclear exactly how nature helps, when it will help, or who it most benefits. Gaining a greater understanding of the mechanisms of these effects of nature is vital, with research in this area often relying on images of nature, however, no open database of standardised images currently exists. We have therefore developed and validated the Salford Nature Environments Database (SNED), consisting of 500 images of natural and urban environments rated on key properties. The images were rated by 801 participants from eight geographical regions. The database comprises standardized photographs of natural environments with associated normative scores for the user-rated characteristics of fascination, refuge and prospect, compatibility, preference, valence, arousal and approach-avoidance. Each image has a minimum of 154 ratings per characteristic. We also collected data on individuals' experiences with nature and desire to spend time in nature. The provision of data representing individual differences in experience and preferences, as well as country of origin, are valuable given their potential to influence ratings. For instance, using pleasantness ratings, findings showed a universal preference for nature images over urban environments, though there were interesting variations in the size of the difference in ratings, with those from the UK showing the largest differences, and those from African nations showing the smallest differences. Further, regression analyses showed that age, preference for spending time in urban environments, preference for spending time in rural environments, and current location can significantly predict pleasantness

ratings for urban vs nature environments. We offer the SNED as an open access resource which has unique value in supporting continued research in areas such as nature-based therapy, social prescribing, and experimental approaches investigating how natural environments improve cognition, mental health and wellbeing. We argue that access to a standardized database, which accounts for individual differences in experience and preference, will accelerate research in this area, increasing the capacity of researchers to conduct rigorous studies that, for example, seek to determine which individuals are most likely to benefit most from exposure to specific natural environments.

Do you feel me? Autism, Empathic Accuracy and the Double Empathy Problem

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Autism is often associated with empathy deficits, particularly cognitive empathy. An alternative perspective challenging this deficit model is the 'double empathy problem', which proposes that empathy difficulties are bidirectional between autistic and non-autistic people. Despite this view gaining popularity, there has been limited research examining whether non-autistic people can empathise accurately, cognitively and affectively with autistic people. To address this gap, 81 adults from the general population were recruited and divided into groups based on how likely they are to share personality traits common in autistic people. Participants were examined using an empathic accuracy task which was modified to include autistic and non-autistic narrators and combined with a body mapping tool. Results showed that participants had significantly lower empathic accuracy scores when viewing autobiographical accounts of emotional events from autistic narrators, compared to non-autistic narrators, especially for happy and sad emotions. However, participants also experienced significantly higher intensity of feeling in the body when viewing autistic narrators compared to non-autistic narrators, especially for anger and fear emotions. These findings support the double empathy problem and have strong implications for therapeutic and interpersonal relationships with autistic people.

On the Road to Sustainability: Applying an Extended Theory of Planned Behaviour Model to Energy-Saving Transportation Practices

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Mitigating climate change demands urgent action, particularly in reducing CO2 emissions, a major contributor to global warming. One critical area for intervention is transportation, where behavioural changes in transportation patterns are needed for lowering individual environmental impact. For designing interventions that can target these behaviours, it is essential to understand the beliefs that underlie them. The present research uses an extended Theory of Planned Behaviour model to identify the beliefs underlying sustainable transportation practices. Five behaviours have been included: (i) general sustainable transportation, (ii) public transportation, (iii) walking and cycling, (iv) reducing car use, and (v) reducing flights. The research followed a three-steps approach. Firstly, beliefs underlying the Theory of Planned Behaviour variables have been elicited in a qualitative study. The most predominant beliefs have been included in the second phase, consisting of a questionnaire that measured beliefs, attitudes, subjective norm, perceived behavioural control, habit, moral norms, and intention. Lastly, a one-week follow-up has been conducted to measure behaviour. The findings indicate that behavioural beliefs strongly predict attitudes, habit beliefs predict habit, and moral norm beliefs predict moral norm across all five behaviours. Regression models showed that the extended Theory of Planned Behaviour model had a better predictive capacity than the standard model, with the most significant predictors being habit and moral norm. Intention was a significant predictor of behaviour but only explained a low proportion of variance. Interventions aiming to promote sustainable transportation practices should particularly focus on influencing individuals' habits and moral norms, as these factors have shown significant impact across most behaviours studied.

The Cultural Adaptability of the Short Dark Tetrad (SD4): Examination of its Properties Across Models and Gender in a Romanian Sample

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The Short Dark Tetrad (SD4; Paulhus et al., 2021) is a self-reported measure of Machiavellianism, narcissism, psychopathy, and sadism. Recent has evidenced limitations regarding its generalisability across cultural contexts, consequently calling for further research. Therefore, the aim of the present study was to investigate the psychometric properties of the Romanian translation of the SD4 in two samples (Total N = 729). We tested, evaluated, and compared the fit of alternative latent models, namely: Confirmatory Factor Analytic model (CFA), Bifactor Exploratory model (B-ESEM), ESEM, and a 'mini' 12-item CFA model based on Neumann et al.'s (2022) paper. Additionally, we used multi-group analysis to gain data on gender-invariance. We explored the criterion-validity of the SD4 by evaluating sub-scale correlations with social dominance orientation, after controlling for gender. Overall, the results confirmed the suitability of the reduced, 12-item CFA that represented the best fit to the data along with the B-ESEM. Although the former showed substantial main loadings, no cross-loadings, and adequate factor intercorrelations, the latter indicated substantial interpretability issues for the general factor. Only the ESEM and 12-item CFA models showed full gender invariance. Moderate correlations between trait scores and social dominance were also identified. Implications for theory and research are discussed.

Individual differences in bodily awareness predict embodied language learning performance

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Within embodied accounts, interactive communication, and gestures play an important role in language learning but this can be influenced by preferred styles of learning and individual differences. This study investigated gesture enactment in adults learning a new language, considering gesture type and individual differences in bodily awareness and sensory imagery. In a computer task, participants learned invented words by: a) hearing words and their translations (control condition); b) hearing words and their translations plus seeing congruent gestures illustrating the words; c) hearing the words and their translations, and enacting a congruent gesture; and d) hearing words and their translations and enacting incongruent gestures. Participants completed self-report measures of bodily awareness and mental imagery. It was hypothesised that enacting congruent gestures would enhance learning for people with high bodily awareness and sensorimotor imagery. Results indicated that enacting congruent gestures facilitated learning whilst enacting incongruent gestures disrupted the learning process and that body listening skills were a statistically significantly positive predictor of better performance in the congruent condition but not in the other conditions. Participants with high body listening skills performed statistically significantly better in the control condition and in the congruent condition. The findings of this study indicate for the first time that individual differences in bodily awareness influence language learning, especially when congruent gestures are used.

Understanding non-zoo visitors' perceptions of animal welfare and the role of zoos

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There was a lack of studies on the comparison between Hongkongers and Westerners viewing zoos. One of the problematic animal welfare conflicts in zoo management is how to create a balanced relationship between zoos and the public, especially non-zoo visitors. The overwhelming majority of worldwide zoos depend on visitors for their financial survival. Considering the major strength of zoos is utilizing the presentation of living animals in a natural context that facilitates human-animal interaction; zoos need to think carefully about how the public faces the zoos' images of conservation, education, research, and entertainment, as well as animal welfare concerns. Ultimately, this study aimed to investigate if zoos are the bridge to connect people and animals and provide some new insights and suggestions for the future development of zoos from non-zoo visitors. Ten online interviews were conducted with people who have worked or volunteered in anti-zoo organizations and the public who had not visited a zoo in the last five years before COVID-19 or never. Hong Kong and the United Kingdom were selected for study regions. Five UK respondents (UK01-UK05) and five Hong Kong non-zoo visitors (HK01-HK05) from a range of educational backgrounds (biological, communication, business, psychology, and humanities) and visited various zoos before (UK, Hong Kong, Japan, Australia, Sweden). The interviews were delivered in either English or Cantonese. QSR Software NVivo 14 was used for the coding of each script. Thematic analysis was applied. The core theme related to non-zoo visitors' past experiences, perceptions, and knowledge of the zoos is the animal welfare of captivity animals. Three primary themes related to animal welfare emerged from the interviews are: 1. Captivity is the root of the problem and hardly conservation of wildlife, 2. Captivity of animals is difficult to play a significant role in educating visitors and mainly for commercial purposes, 3. Zoos lack transparency. The themes were common in the interviews with Hong Kong and the UK non-zoo visitors.

Minds Over Stress: A Thematic Analysis on Islamic Rituals and Coping with Stress

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Studies indicate that unpleasant emotions, such as anxiety and stress, can deplete cognitive function resulting in poorer academic outcomes. As students often express feelings of stress and pressure, it is important that they develop coping strategies to help them manage this. Employing religious coping techniques proves to be an effective method for managing stress. Many studies which have looked at religious coping have focused on Judeo-Christian communities, as a result, the impact of Islamic rituals and coping has often been overlooked. Therefore, the purpose of this study was to explore and understand the different ways that Muslim university students engage in Islamic rituals to tackle stress. The research question that has been devised to explore this is: 'how do students use Islamic rituals to cope with stress?'. Volunteer sampling was used to recruit 8 participants from a North-West university who were currently engaged in an undergraduate degree course. Of these 8 participants, 7 identified as female and 1 identified as a male. The participants took part in a 30-minute semi-structured interview, these interviews were then analysed using thematic analysis. The findings of this study will be discussed at a later date.

Environmental Concern and pro-environmental behaviour: Differential influences of personality and parental bonding.

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Climate change is a societal issue towards which the scientific community is almost universally agreed on the instrumental role of human activity in its threat. Although it is essential to develop a greater understanding of the factors contributing to environmental concern, there is still much to learn. Two of its strongest predictors are childhood experiences in nature and parental attitudes towards the environment. Questions remain, however, about the role of parental care more generally. Levels of parental care have a key role in shaping perceptions of safety and danger being shown to be predictive of adult mental health and overall resilience a relationship, said to be explained by disruptions to the hypothalamic-pituitary-adrenal axis (HPA) response. With research identifying a link between climate concern and poorer mental health, there is an emerging theoretical link between levels of parental care and environmental concern. In this study (N = 647) we therefore examined whether childhood experiences had differential impact on attitudes and behaviours about the environment in adulthood by looking at the contribution of personality traits and parental bonding to environmental concern and engagement and frequency of pro-environmental behaviour. Interestingly, reduced father care predicted environmental concern which suggests, as per life history theory, that growing up in a harsh environment leads to a continued perception of existential threat in adulthood in which the environment is considered as being in greater peril. Pro-environmental behaviour was mainly predicted by personality traits and age, which demonstrates a developed behaviour that is not influenced by parents. The findings have implications on our understanding of individuals who have greater environmental concerns and how pro-environmental behaviour is fostered.