

# DP PD

15<sup>th</sup> DPPD CONFERENCE DRESDEN | 16 - 18 SEPTEMBER 2019





Sessions

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### **SESSIONS**

#### Mon 16 September

# State of the Art Session: Shaping the future of psychological assessment (Digitalization, Big Data and Artificial Intelligence)

TIME 09:00 – 10:30

LOCATION Main Hall (MH)

CHAIR Markus Bühner, Ludwigs-Maximilians-Universität München

Martin Kersting, Justus-Liebig-Universität Gießen

Anja Strobel, Chemnitz University of Technology

Since the beginning of work in psychological assessment, our discipline has faced the challenge of maintaining a balance between research into and application of validated and scientifically sound methods and the requirements and wishes of practical users. This state-of-the-art session deals with current challenges of psychological assessment. In the first part of the session, we will give an overview of the history of psychological assessment, especially in the context of personnel selection, focusing on major upheavals and the associated changes, difficulties and opportunities. Be it the introduction of assessment centers or the development of computer-based assessment methods - every innovation posed new demands on psychological assessment in research and practice, required new ways of thinking, new approaches to test construction or theory development. Currently, we are facing a new challenge: increasing digitalization and the availability of large amounts of data from various sources raise the question of their use in psychological assessment. In the second part, a first outline of this topic is given and concepts and backgrounds are explained. The possibilities and limits of these new approaches are worked out using empirical examples and taking a critical look at existing practical offers. Finally, the resulting demands on psychology are described, legal and ethical aspects are discussed and it is made clear in which way the participation of psychologists is required in order to deal with the new methods in a responsible way ensuring high quality of psychological assessment. The session will be held in German.

#### Strobel, Anja

Chemnitz University of Technology

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#### Bühner, Markus

Ludwigs-Maximilians-Universität München

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#### **Kersting, Martin**

Justus-Liebig-Universität Gießen

... the resulting demands on psychology are described, legal and ethical aspects are discussed and it is made clear in which way the participation of psychologists is required in order to deal with the new methods in a responsible way ensuring high quality of psychological assessment.

#### State of the Art Session: Psychopathy and Antisocial Personality

TIME 09:00 – 10:30

LOCATION Workshop-Room 1 (WS1)

CHAIR Andreas Mokros, FernUniversität in Hagen

Nearly 100 years after Kurt Schneider seminal treatise and almost 80 years after Hervey Cleckley's most influential monograph the field seems to be more divided than ever. Do psychopathy and antisociality belong to an agonistic continuum? Or are they distinct constructs that may co-occur in some individuals but not in others (e.g., so-called successful psychopaths)? Does the notion of psychopathy preclude the notion of adaptive or functional traits (such as boldness or fearless dominance)? The symposium has a fourfold purpose: 1) Summarizing the state of knowledge on psychopathy and antisociality. 2) Looking at possibly adaptive features (particularly fearless dominance) in terms of organizational and work behavior. 3) Highlighting the relevance of multi-method assessment in heterogeneous samples as the way forward for the field. 4) Providing ample opportunity for discussion with the delegates who are attending the session. Andreas Mokros will focus on recent findings using factor mixture modeling in a sample of offenders, highlighting the implications for etiological models. Sally Olderbak will present multi-modal experimental findings challenging theoretical accounts that circle around deficiency in emotion recognition. Gerhard Blickle will introduce recent findings on fearless dominance. More specifically, he will look at the association with performance indicators in organizational contexts.

#### Mokros, Andreas

FernUniversität in Hagen

Etzler, Sonja

Goethe University Frankfurt

**Sally Olderbak** 

**Ulm University** 

# Meta-analyses, meta-meta-analyses, and meta-research in individual differences research

TIME 09:00 – 10:30

LOCATION Workshop-Room 2 (WS2)

CHAIRS Martin Voracek, University of Vienna

Jakob Pietschnig, University of Vienna

In the wake of the replicability debate and confidence crisis of the 2010s and the now ensuing renaissance (Nelson, Simmons, & Simonsohn, 2018) in psychological science and other empirical disciplines, a number of important reactions and innovations have gained momentum. These positive trends include replication initiatives of unprecedented scale, a general method reform, the open-science movement, and statistical tools for assessing the evidential value of empirical findings. As well, these events have spurred further meta-analytic method development and applications, including second-order research synthesis (meta-meta-analysis), and have led to the emergence of meta-research (research on research and its practices). This symposium highlights the relevance of these latter three approaches of evidence accumulation for building consilient knowledge in individual differences research. The 4 presentations report research conducted in the context of the Faculty of Psychology, University of Vienna, branch within the Network of Open-Science Initiatives at Psychology Departments (NOSI; https://osf.io/tbkzh/) and specifically address: (1) a long-standing question in intelligence research (Plessen); (2) effect declines in intelligence research and elsewhere (Pietschnig); (3) publication bias in individual differences research (Siegel); (4) and meta-research on the "Journal of Individual Differences" (Voracek).

### The conundrum of twin-singleton differences in intelligence: A centenary (1924-2018), preregistered meta-analysis

Plessen, Constantin Y.; Lammer, Annemarie; Tran, Ulrich S.; Voracek, Martin

University of Vienna

Twin-singleton differences in IQ would be of concern for many groups, starting with parents of multiples and educators, up to behavioral geneticists (who depend on twin-singleton equivalence for generalizing twin study results to the general population) and cognitive epidemiologists (who investigate IQ associations with morbidity and mortality). It is thus unsurprising that twin-singleton differences in IQ have been investigated since the advent of twin studies and IQ test batteries (Merriman, 1924). We significantly update and expand the sole meta-analysis on this topic (Voracek & Haubner, 2008). Extensive literature search strategies identified 453 eligible effects from 108 studies from 25 countries (totalling 6,100,000+ singletons and 184,000+ twin individuals), published 1924-2018. Multilevel meta-analytic modelling showed twins scored about 4 IQ points lower than singletons: a non-trivial effect, when considering tail ratios and liability-threshold models. Further, the effect was temporally stable, robust with respect to publication bias, generalized to a surprising scope (across sex, geography, measuring instruments, premature birth status, and assisted reproductive technologies), whilst systematic sources accounting for observed cross-study effect heterogeneity remained elusive. The conundrum of this group effect in IQ seems not satisfactorily solvable with the available evidence. Specifically, data from adults and less developed countries remain a desideratum.

### It's not getting any better: Systematic, strong, and overproportional effect declines over time are not confined to intelligence research

Pietsching, Jacob¹; Eder, Junia¹; Gittler, Georg¹; Voracek, Martin¹; Wichters, Jelte²; Siegel, Magdalena¹

Empirical sciences in general and psychological science in particular are plagued with reproducibility problems. Initial (exploratory) effects often are substantially inflated, hard to replicate, or false. However, systematic empirical accounts on the prevalence, strength, and causes of non-reproducibility are lacking. Here, we show effect declines over time in two meta-meta-analyses. First, we report results based on 22 meta-analyses (k=36; N=697,639) in the journal "Intelligence". We show that initial reports misestimated summary effects by a small-to-moderate effect size (r = .17). Inflated effects were larger (r misestimations = .18 vs. .08) and twice as likely than deflated effects. Misestimations were positively associated with initial study effects and negatively with initial study sample sizes. Second, we replicated the results in a preregistered synthesis of meta-analyses (k = 247; N = 271,000,000+) from four high-impact journals in psychology. Again, effect declines were more prevalent than increases at a 2:1 ratio and related to initial study effects and sample sizes, but effect misestimations were larger than in intelligence research (r misestimations = .19; .23 vs. .11 for decreases and increases). We argue that the virtually ubiquitous, non-trivial effect misestimations in psychological science are (i) more frequent and stronger for declines than increases, (ii) associated with initial study properties, and (iii) attributable to strategic submission behavior.

#### Publication bias in individual differences research is underestimated: A meta-meta-analysis

Siegel, Magdalena<sup>1</sup>; Eder, Junia<sup>1</sup>; Gittler, Georg<sup>1</sup>; Voracek, Martin<sup>1</sup>; Wichters, Jelte<sup>2</sup>; Pietschnig, Jakob<sup>1</sup>

Effect inflation poses a serious threat to the validity of empirical findings and has often been demonstrated to be due to publication bias. Based on data from 42 meta-analyses (2,793 effect sizes, 780,700+ participants) published in "Personality and Social Psychology Review", we show that publication-bias prevalence in individual differences research is considerably underestimated. In fact, reanalyses of these meta-analyses by applying seven standard (e.g., trim-and-fill) and more modern (e.g., p-curve, p-uniform) methods for publication-bias detection yielded evidence for publication bias in about 37% of cases. This contrasts considerably lower author-reported bias prevalence (about 10%), yielding a ratio of more than 3:1. Moreover, we show that applications of bias assessment in individual differences meta-analyses are comparatively common (i.e., 76% of authors use at least one method; Mdn number of methods = 2, range = 1-8), but mainly rely on subjective (i.e., visual funnel-plot inspection) or outdated methods (i.e., failsafe N). Because different properties of publication-bias detection methods entail differing sensitivity, bias underestimation may be mainly driven by the use of inappropriate methods, in addition to studies that do not assess bias. We argue for the use of (i) several and (ii) state-of-the-art methods of bias detection, as the current overreliance on popular, yet outdated, methods masks bias in individual differences research.

<sup>&</sup>lt;sup>1</sup> University of Vienna, <sup>2</sup> Tilburg University

<sup>&</sup>lt;sup>1</sup> University of Vienna, <sup>2</sup> Tilburg University

Meta-research on the development of the N-pact factor of the "Journal of Individual Differences" (erstwhile "Zeitschrift für Differentielle und Diagnostische Psychologie"), 1980-2017

**Voracek, Martin**; Kossmeier, Michael; Vilsmeier, Johannes; Dittrich, Rosalie; Fritz, Tanja; Kolmanz, Caroline; Plessen, Constantin; Slowik, Agnieszka; Tran, Ulrich

University of Vienna

The N-pact factor (NF), defined as the median sample size of studies published in a journal in a year, has recently been proposed as a novel quality attribute of journals (Fraley & Vazire, 2014), alternative to the widely criticized journal impact factor. Initial meta-research investigations into the NF have evidenced NF figures hovering merely about 100, or slightly beyond, for fields like social, sport, and exercise psychology, whereas NFs of journals in clinical psychology and suicidology are appreciably higher (about 180 and 200, respectively). One shared limitation of these accounts is that observation periods throughout were contemporary; hence, historical perspectives on the NF are lacking, and possible time trends in the NF are unexplored. In this first long-term and largest NF analysis to date (based on about 3700 articles; manually coded and evaluated, instead of relying on text mining), we tracked annual NFs of the "Journal of Individual Differences" (the erstwhile "Zeitschrift für Differentielle und Diagnostische Psychologie") from its inception (1980) up to 2017. We compared the trajectory of this journal's NF with the one of "Personality and Individual Differences" (an obvious object of comparison, likewise founded in 1980). Inter alia, main results include that the annual NF indeed gradually increased over time and overall amounted to about 190. Discussion focuses on possible causes for this favourable evidence and refreshing development of the journal.

# Stable, Changing, or Fluctuating? Shedding a Closer Look on the Nature of Interests

TIME 09:00 - 10:30

LOCATION Workshop-Room 3 (WS3)

CHAIRS Lena Roemer, Humboldt-Universität zu Berlin

Matthias Ziegler, Humboldt-Universität zu Berlin

Traditionally, interests are conceived as rather stable constructs—with important relations to occupational, educational, and motivational outcomes. However, this assumed stability should not be taken for granted—but rather be investigated from various angles. For example, questions regarding the amount of fluctuating and stable parts of interests or regarding the stability of interests at a younger age remain unanswered. Further, the conceptualization of interests at a state-level might also contribute to broadening the traditional view of interests as stable constructs. In order to contribute to answering these issues, this symposium brings together three studies. First, Gundula Stoll decomposes variance of vocational interests into a stable, a slowly changing, and a situation-specific component. Then, Thomas Gfrörer sheds light onto the stability of vocational interests over the course of early adolescence and presents data from German students. Finally, Lena Roemer presents data from an experience-sampling study focusing on intraindividual variability of interests at a state-level. The theoretical and practical value of these studies will be discussed by Matthias Ziegler.

### Using STARTS Models to Decompose Stable, Slowly Changing and Situation-Specific Sources of Variance in Vocational Interests

Stoll, Gundula 1; Rieger, Sven1; Nagengast, Benjamin1; Trautwein, Ulrich1; Lüdtke, Oliver2

Vocational interests reflect important aspects of personality (Roberts & Wood, 2006; Stoll & Trautwein, 2017) and strong predictors of work- (Nye, Su, Rounds, & Drasgow, 2012) and life outcomes (Stoll et al., 2017). Vocational interests demonstrate high stabilities (Low, Yoon, Roberts, & Rounds, 2005), but are also assumed to develop in interaction with the environment (Holland, 1997; Su, Stoll, & Rounds, in press) and to be influenced by environmental factors that might be relatively stable themselves. In addition, vocational interests may also be influenced by situation specific factors—representing a state-like component of vocational interests (Phan, Amrhein, & Rounds, 2017). We aimed to decompose interindividual differences in vocational interests across time into differentially stable components. We used STARTS (stable trait, autoregressive trait, state) models (Kenny & Zautra, 1995, 2001) in a Bayesian framework (Lüdtke, Robitzsch, & Wagner, 2017) that allow to separate different sources of variance: a time-invariant factor or stable trait; a relatively enduring and predictable autoregressive trait that depends mostly on the previous time point; and a completely time-specific factor or state. We used a large data set (N = 3.023) in which vocational interests of young adults were assessed at six time points every second year. Our results suggest that the high stabilities typically found in vocational interests result mainly from a combination of totally stable (up to 45%) and slowly changing autoregressive factors (up to 49%). In doing so, our findings contribute to a deeper understanding of change and stability in vocational interests.

### Assessing the Nature of Vocational Interests During Early Adolescence – A Latent State-Trait Model Approach

Gfrörer, Thomas; Stoll, Gundula; Rieger, Sven; Nagengast, Benjamin; Trautwein, Ulrich

Hector-Institut für Empirische Bildungsforschung

Despite their influence on various life outcomes (Stoll et al., 2017), little is known about the development of vocational interests, especially in younger age cohorts (Rounds & Su, 2014). The current study addresses this gap, by investigating the stability of vocational interests over the course of early adolescence. We used data from the TRAIN-study (136 classes, 99 schools, N = 3880), in which students from Germany were followed annually from 5th to 8th grade. Vocational interests were operationalized within the RIASEC framework (Holland, 1997). The questionnaire was a combination of the AIST (Bergmann & Eder, 2005) and a German translation of the ICA (Tracey & Ward, 1998). To investigate the stability of vocational interests, we specified a generalized second-order growth model (GSGM) to compute state-trait variance components for each RIASEC dimension. The coefficients consistency (CO) and occasion specificity (OS), are usually computed to assess these proportions (Steyer, Schmitt, & Eid, 1999). CO represents the variance proportion of the indicators due to trait components, whereas OS represents the variance proportion due to situation specific state components. Realistic, Investigative, Artistic, Social and Enterprising interests had larger trait (21.4% < CO < 34.0%) than state (16.7% < OS < 22.8%) components. Conventional interests had larger state than trait components. The results suggest that vocational interests are more trait-like during early adolescence. However, they also comprise substantive state components, suggesting that juveniles are to a certain degree responsive towards environmental triggers that activate short-term fluctuations in vocational interests.

<sup>&</sup>lt;sup>1</sup> Hector-Institut für Empirische Bildungsforschung, <sup>2</sup>Leibniz Institute for Science and Mathematics Education and Centre for International Student Assessment

#### The Relation Between Situational Vocational Interests and Situation Perception

Roemer, Lena; Horstmann, Kai; Ziegler, Matthias

Humboldt-Universität zu Berlin

Traditionally, vocational interests are studied as an individual's stable preferences for different work activities. However, recent theoretical and empirical contributions suggest the existence of intraindividual variability in vocational interests across situations. Therefore, it could be assumed that RIASEC interests also have states—comparable to the conceptualization of personality states as momentary expressions of personality. This preregistered experience sampling study was conducted to examine a) the within-person variability of interests and b) the relations between interest states, other person-related, and situational factors that might influence these momentary experiences. Data was gathered from N = 237 persons, amounting to 5871 observations. Results show that vocational interests vary intra-individually. However, intraclass correlation in interest states are larger compared to other measures at state-level (e.g., personality, affect)—revealing less fluctuations of interests within persons. Further, data indicates that interest states vary mainly below their corresponding trait-levels, suggesting that interest traits are somewhat hindered to express themselves in situ. Finally, interest states covary substantially with situation characteristics, and theoretically coherent associations remain even after controlling for personality and affect.

#### **Understanding Situational Judgment Tests**

TIME 09:00 – 10:30

LOCATION Workshop-Room 4a (WS4a)

CHAIRS Jan-Philipp Freudenstein, Freie Universität Berlin

Magdalena Reineboth, Technische Universität Chemnitz

Stefan Krumm, Freie Universität Berlin

Situational Judgment Tests (SJTs) have a long tradition within the field of personnel selection but may also be promising assessment tools to examine personality-situation interplay. They typically consist of a short situation description and several response options that reflect different behaviors to situational demands. Especially the long held belief that SJTs simulate real situations in an economic manner makes these tests intriguing. However, SJTs often lack validity and reliability, which hinders the applicability of these tests in research and practice. This symposium aims to provide best-practice examples of SJT development, ample evidence of how to improve psychometric properties of SJTs, and further insights into underlying psychological processes. Thereby, we hope to encourage new developments of SJTs that help understanding some prevailing questions in the field of personality and differential psychology and, in general, research on this test format.

#### Development of a Situational Judgment Test assessing behavior in morally relevant situations

Reineboth, Magdalena<sup>1</sup>; Franke-Barthold, Luise<sup>1</sup>; Wegge, Jürgen<sup>2</sup>; Strobel, Anja<sup>2</sup>

<sup>1</sup> Technische Universität Chemnitz, <sup>2</sup> Technische Universität Dresden

In complex work-environments, considering moral aspects of a situation becomes more and more important. Therefore, organizations benefit from employees and leaders who can identify situations as morally relevant and act in an effective and appropriate manner. To assess behavior in such situations, we developed a knowledge based Situational Judgment Test (SJT). Based on interviews with 48 leaders and employees about morally relevant situations, 127 item stems were derived. To generate the basis for response options, N = 351 employees and students were asked to describe

possible behavioral options for the items presented. To evaluate the effectiveness of the response options, empirical scoring with silence, voice and moral courage as indicators was used (Ntotal = 746 employees). As result, 28 Items with four response options each are available. Currently, we selected a set of 10 items to test associations with morally relevant criteria in a sample of employees. Therefore, we use silence as non-action in morally relevant situations and voice as active and promotive behavior in organizational environments. Furthermore, civil courage as prosocial behavior that can be associated with negative social consequences for one's own person and moral courage as the ability to commit to moral principles and resist pressure to act unmorally are considered. The validation results are presented and future applications of the SJT in personnel selection are discussed.

#### Are Situational Judgment Tests doomed to be internally inconsistent?

Sengewald, Erik; Sander, Nicolas

German Federal Employment Agency

SJTs have been shown to display incremental validity over and above intelligence and personality traits when it comes to predicting job performance. Thus, they appear as a promising method of assessing occupational aptitude. However, SJTs are often plagued by low reliability in terms of internal consistency. Since only a heterogeneous set of situational vignettes is suitable to predict the full range of relevant behaviour, the scores of a SJT have to be expected to display ultidimensionality. This problem deepens, when employing SJTs with both: "should-do"-instructions (aiming at situational knowledge) and "would-do"- instructions (aiming at individual preferences). Consequently, Campion et al. (2014) enforce the use of retest-reliability as preferred method of assessing reliability of SJTs. By means of an SJT assessing achievement motivation, applied to more than 4000 unemployed clients, we provide evidence that a better understanding of true score variance can be gained by assessing reliability using omega hierarchical and omega total. These indicators disclose sources of systematic variance in SJT-scores. These analyses are supplemented by investigations of validities with respect to concurrent measures of intelligence, personality and occupational interests. As a result, it can be concluded that SJTs are reliable and valid under both conditions: "would do" and "should do". In the discussion, the utilization of omega is enforced.

### Situational Judgment Tests of Personality: An Evaluation of Different Response Formats and Scoring Procedures

Olaru, Gabriel<sup>1</sup>; Jankowsky, Kristin<sup>1</sup>; Mussel, Patrick<sup>2</sup>; Mazziotta, Agostino<sup>3</sup>

<sup>1</sup> Universität Kassel, <sup>2</sup> Freie Universität Berlin, <sup>3</sup> FernUniversität Hagen

SJTs are a commonly used method for personal selection. In this context, SJTs are assumed to measure procedural knowledge relevant in the described situations. Trait variance is only captured to a small or negligible degree by these SJTs. In recent years, several SJTs have been developed as alternatives or complements to traditional measures of traits, most prominently as assessments of personality. However, it is unclear whether the traditionally used Single Choice response formats and Expert based scoring procedures provide the best validity for these newly developed measures. We thus compared the validity of different response formats – Likert-scale, Multiple Choice and Single Choice – and scoring procedures – based on sample distributions, expert ratings and empirically derived weights – on a set of SJT measures of the Five Factor Model of personality. We compared each combination of response format and scoring procedures based on factor analytic evidence, correlations with traditional personality measures and prediction of relevant outcomes. We studied the construct validity of these SJTs in confirmatory MTMM models using self-report and criterion measures of personality. We provide recommendations for the application and scoring of SJTs and discuss their application as a complement or alternative to traditional measurements of personality.

### Measurement Artifact or Fundamental Process of Situational Judgment Tests? Assessing the Construct Validity of Implicit Trait Policies

Freudenstein, Jan-Philipp; Mussel, Patrick; Krumm, Stefan

Freie Universität Berlin

The validity of SJTs has recently been described as "hot mess" (McDaniel et al., 2016, p. 47) in a debate about underlying psychological processes of these tests. One position in this debate was that SJTs may reflect measures of context-independent procedural knowledge, and more specifically as Implicit Trait Policies (ITPs). ITPs are defined as implicit beliefs about the effectiveness of behaviors that reflect a certain trait. For instance, the general belief that agreeable behavior is always more effective than disagreeable behavior, independent of the situational context, constitutes an ITP for agreeableness. In the context of SJTs, ITPs are typically operationalized as the correlation of a person's effectiveness rating and the degree of trait expression of a given response option. Researchers often correlate such ITP scores with traditional SJT scores and interpret the result as the saturation of SJT performance with ITPs. We used a Monte-Carlo simulation approach to demonstrate that most empirical findings on the relation of SJTs and ITPs lack interpretability. Specifically, such correlations do not reflect whether test-takers use ITPs to select a response option. Additionally, we conducted a study with N  $\approx$  300 participants to assess the construct validity of several ITPs in a multitrait-multimethod approach. Results are discussed with regard to SJT theory. Implications for the relevance of ITPs in SJTs are delineated.

### A Goal Questionnaire Based on an Integrative Taxonomy – Its Development and Future Application in the Construction of Situational Judgment Tests

Weis, Susanne; Karthaus, Christiane

Universität Koblenz-Landau

A frequent problem for the development of SJTs to assess social competencies is the question of how to score individuals' responses. The "best" solution is most frequently defined by expert or group consensus whereas some theoretical models define an action as social competent when a given goal is reached. This aspect, however, was so far widely unconsidered in the construction of SJTs. Moreover, inspecting SJT items that do not explicitly include a goal description in the vignettes, it seems most reasonable that individuals more or less implicitly construct underlying goals in order to find the best response alternative. Therefore, in order to systematically implement goal orientation in the construction and assessment process of SJTs, an instrument to assess individual goals on a situation-specific level is required. Existing instruments (e.g., GOALS), however, are very general and are hardly separable from motivational aspects. The present study presents the development of a questionnaire of individual goals relying on a hierarchical taxonomy of human goals integrating existing taxonomies (Chulef, Read, and Walsh, 2001; Ford & Nichols, 1987). First, the process of integration, the resulting taxonomy and the subsequent item construction is described. Second, we present a study investigating the factorial structure of the items and the validity of the final scales with personality dimensions and motives (N about 280). Future applications of the questionnaire within the process of developing and scoring of SJTs are discussed.

#### **Paper Session 1: Daily affect dynamics**

TIME 09:00 - 10:30

LOCATION Workshop-Room 4b (WS4b)

CHAIR Leon P. Wendt, Universität Kassel

### Truth or Wishful Thinking? An In-Depth Investigation of the Effects of Implicit and Explicit Communal Motives on Momentary Partner Perceptions

Pusch, Sebastian<sup>1</sup>; Schönbrodt, Felix<sup>2</sup>; Zygar, Caroline<sup>2</sup>; Hagemeyer, Birk<sup>1</sup>

<sup>1</sup> Friedrich-Schiller-University Jena, <sup>2</sup> Ludwig-Maximilians-Universität München,

The present paper investigated how inter-individual differences in implicit and explicit communion motives manifest in people's everyday perceptions of their romantic partner. Combined data from two extensive experience sampling studies (total N = 80,473 observations from 640 individuals nested in 327 couples) were used to examine the effects of perceivers' communal motives on mean-level bias and tracking accuracy in the perception of their partner's momentary communal behavior. As hypothesized, perceivers with a strong implicit or explicit communal motive systematically overestimated their partner's communal behavior to a higher degree than those with a weaker motive. In addition, having a strong implicit – but not explicit - communal motive was linked to reduced accuracy in the perception of the partner's uncommunal behavior: Perceivers with a strong implicit communal motive less likely noticed when their partner behaved less communal than usual, compared to perceivers with a weaker motive. The results suggest that individuals perceive their partner in ways that accord with their individual motive strength: Strong communal motives appear to manifest in a positively biased view of the partner, particularly when the partner's behavior poses a threat to the attainment of communion in the relationship.

#### **Empathic Stress**

Altmann, Tobias; Roth, Marcus

Universität Duisburg-Essen

Past research has repeatedly demonstrated the benefits of empathy, such as higher life satisfaction and altruistic behavior as well as less prejudiced and stereotyped attitudes. At least in private life where highly negative emotional issues arise only sporadically, empathy is a desirable and efficient ability. In social professions such as psychotherapy or health care, however, professionals are expected to empathize with numerous and various people usually in highly negative emotional situations on an everyday basis. In these settings, empathy can be considered to be both a valued ability and a potential hazard. On the one hand, empathy allows the professional to work efficiently on the emotional issues of the patient. On the other hand, empathic concern for and feeling with numerous patients in rapid succession with most of them experiencing intense negative emotions can be a high emotional demand. Hence, empathy might also be positively associated with undesired outcomes such as depressiveness and burnout. To test which aspects of empathy show positive or negative associations with consequences of emotional stress due to empathic interactions in care professionals, we conducted a longitudinal study with four assessments over twelve months with a sample of 186 nurses from four university hospitals. Empathy was assessed as both empathic dispositions and empathic abilities using both self-reports and tests. Outcome variables were cognitive and emotional irritation, burnout, depressiveness, and psychosomatic symptoms. The results support the hypotheses partially and are discussed with respect to expanding the perspective on the bright and dark sides of empathy.

### Personality States, Situation Experience, and Affective States Mediate the Relation Between Personality and Affect

Kritzler, Sarah; Krasko, Julia; Luhmann, Maike

Ruhr-Universität Bochum

Personality traits are strongly related to subjective well-being, but the mechanisms that account for this association are not yet fully understood. We propose and test a new model of the personality-affect relation integrating the dynamic mediation hypothesis and the social participation hypothesis. Our model proposes that personality traits are related to affect because they are associated with daily behaviors and situations that in turn promote positive affect. We present data from an experience sampling study including 4381 situation reports from 206 undergraduate students that indicate that (a) personality traits are associated with average levels of enacted personality states and experienced situation characteristics, (b) personality states and situation characteristics are associated with affective states, (c) affective states are associated with trait affect, and (d) that these mechanisms mediate the relations between personality traits and trait affect. These results support our model and call for a closer integration of research in personality and social psychology.

#### The Structure of Emotional Daily Dynamics

**Wendt, Leon P.**<sup>1</sup>; Wright, Aidan G.C.<sup>2</sup>; Pilkonis, Paul A.<sup>2</sup>; Woods, William C.<sup>2</sup>; Denissen, Jaap J. A.<sup>3</sup>; Kühnel, Anja<sup>4</sup>; Zimmermann, Johannes<sup>5</sup>

<sup>1</sup> Universität Kassel, <sup>2</sup> University of Pittsburgh, <sup>3</sup> Tilburg University, <sup>4</sup> Medical School Berlin, <sup>5</sup> University of Kassel

Individual differences in the experience of emotions form an important part of personality. Research on emotional dynamics using intensive longitudinal designs has generated novel statistics associated with concepts from emotion research (e.g., inertia, emotion differentiation, and bipolarity) that may align with trait-like individual differences. However, it has yet to be shown that such statistics (other than the mean level of affect) provide stable and incremental information on between-person differences. To investigate this issue, we used daily data from three diverse samples including students, individuals with psychiatric disorders, and their significant others (total N = 975, average number of days = 27.7). Principal component analysis reduced the various person-specific statistics to seven components that emerged robustly across samples. Of these, four components (trait positive affect [PA], trait negative affect [NA], trait hostility [H], and PA variability) had high test-retest reliability (> .70) and three components had low test-retest reliability (< .25; PA inertia, NA/H inertia, and NA/H synchrony). Components' of trait PA, trait NA and trait H were related to major domains of personality in expectable ways. PA inertia was related to conscientiousness. Our results provide further insights into the structure and stability of day-to-day emotional dynamics.

# State of the Art Session: Socio-emotional skills in education and beyond - Recent findings and practical applications

TIME 13:30 – 15:00

LOCATION Main Hall (MH)

CHAIRS Beatrice Rammstedt, Leibniz-Institute for the Social Sciences

Clemens Lechner, Leibniz-Institute for the Social Sciences

Socio-emotional skills (SES) are increasingly recognized as important determinants of educational success, well-being, and other positive outcomes. The session illustrates the relevance of SES outside the core field of personality research. After a general introduction, talks will exemplify three different approaches: In the first talk Clemens Lechner will focus on the associations of SES with school achievement and school-to-work transitions. Using recent large-scale data, he will cast light on how the interplay of SES with cognitive skills and institutional factors shapes educational outcomes. The second talk by Marion Spengler will synthesize the body of research how educational contexts and transitions influence the development of SES. In particular, she will report findings from two studies investigating the role of the educational context and the role of job experiences. As her results – and findings by other researchers in the field - clearly support the malleability of the SES by life circumstances, efforts are currently made to intentionally change SES by interventions. The Bonn Intervention Panel (BIP) is an example of such a large-scale intervention study. In the BIP children from socially disadvantaged families were trained in prosocial behavior using a quasi-experimental design. Fabian Kosse will present central findings of this study. We will conclude with a brief overview of different applications of SES. The contributions will be discussed by Brent Roberts.

#### Lechner, Clemens

Leibniz-Institute for the Social Sciences

Clemens Lechner will focus on the associations of SES with school achievement and school-to-work transitions. Using recent large-scale data, he will cast light on how the interplay of SES with cognitive skills and institutional factors shapes educational outcomes.

#### Spengler, Marion

Hector Institut für Empirische Bildungsforschung

The second talk by Marion Spengler will synthesize the body of research how educational contexts and transitions influence the development of SES. In particular, she will report findings from two studies investigating the role of the educational context and the role of job experiences. As her results – and findings by other researchers in the field - clearly support the malleability of the SES by life circumstances, efforts are currently made to intentionally change SES by interventions.

#### Kosse, Fabian

Ludwig-Maximilians-Universität München

Fabian Kosse will present central findings of The Bonn Intervention Panel (BIP), an example of a large-scale intervention study. In the BIP children from socially disadvantaged families were trained in prosocial behavior using a quasi-experimental design.

#### **Brent Roberts**

University of Illinois

# State of the Art Session: Behavioral Genetics from a Molecular Perspective

TIME 13:30 - 15:00

LOCATION Workshop-Room 1 (WS1)

CHAIRS Diana Ambruster, Technische Universität Dresden

Jürgen Hennig, Justus-Liebig-Universität Giessen

Martin Reuter, Rheinische Friedrich-Wilhelms-Universität Bonn

Lars Penke, Universität Göttingen

This state of the art session will explore the role of behavioral genetics for the field of differential and personality psychology. Genetic differences as one possible cause for individual differences in personality and intelligence have long been in the focus of research. Early on, twin and adoption studies confirmed the heritability of various complex traits but also revealed significant influences of environmental factors. With advances in technology, complex traits have been associated with specific genetic polymorphisms in candidate gene studies and genome-wide association studies (GWAS). However, the effects of genes depend on numerous regulating factors ranging from internal influences like hormonal status to external effects like radiation or maltreatment. The expanding field of epigenetics investigates changes in gene expression patterns and aims to link them to various clinical and non-clinical outcomes. In this session, four experts will present and discuss current trends and developments in behavioral genetics and associated research areas. We will highlight controversies and sensitive issues as well as present methodological approaches and address open questions. Though many challenges remain, we will make the case that in addition to foster interdisciplinary cooperation, behavioral genetics has much to contribute to differential psychology itself and can advance our understanding of individual differences. This Session will be held in German.

#### **Behavioral Genetics from a Molecular Perspective**

Penke, Lars

Universität Göttingen

Hennig, Jürgen

Justus-Liebig-Universität Giessen

**Martin Reuter** 

Rheinische Friedrich-Wilhelms-Universität Bonn

#### **Narcissism in Close Interpersonal Relationships**

TIME 13:30 – 15:00

LOCATION Workshop-Room 2 (WS2)

CHAIR Katrin Rentzsch, University of Bamberg

Narcissism has considerable implications for one's close interpersonal relationships. Previous findings, however, revealed diverging interpersonal relationship correlates of grandiose narcissism ranging from interpersonal success to interpersonal problems. The aim of the present symposium is to explore potential mechanisms underlying these distinct relations by focusing on different facets of grandiose narcissism. Carolyn Morf and colleagues present data from two dyadic studies examining how accurate agentic narcissists perceive support received from their romantic partners and how their partners perceive the narcissists' support. Katrin Rentzsch and Tanja Gerlach investigate the differential link between agentic and antagonistic narcissism on relationship satisfaction through distinct situation perceptions in a dyadic diary study. Janis Jung and Michela Schröder-Abé present data from a large representative panel study on parenting behavior mediating the distinct association between agentic and antagonistic narcissism on children's problem behavior in parent-child dyads. Jochen Gebauer focuses on previous inconsistent results regarding the social relationship outcomes of communal narcissism by presenting a series of person-perception experiments designed to resolve those inconsistencies. Together, the talks provide new insights into the role of different facets of narcissism for close interpersonal relationships. The current findings will be discussed and integrated in light of existing narcissism models.

#### Accuracy and Bias in Perceptions of Partner Behavior in Relationships of Narcissists

Morf, Carolyn C<sup>1</sup>.; Torchetti, Loredana<sup>2, 3</sup>; Lombris, Claudia<sup>1</sup>

<sup>1</sup> University of Bern, <sup>2</sup> Pädagogische Hochschule Bern, <sup>3</sup> Pädagogische Hochschule Luzern

Narcissists are intent on constructing and maintaining a grandiose self that is special and superior. In service of this self-enhancement goal, their perceptions of others are often negatively biased. This talk presents research in progress examining how these perceptual processes play out in their romantic relationships. In one study, each dyad member of 86 couples reported on support given and received from their partners over 14 days. Results from actor-partner interdependence model (APIM) analyses indicated that narcissists are particularly sensitive to their partners' shortcomings by being more accurate in tracking changes in negative forms of support received over days. High narcissists also showed other negative biases (e.g., underestimation of positive partner behaviors). In contrast, partners of narcissists, appear to have a positive bias in ongoing relationships. They underestimated the significant amount of negative support provided by the narcissists. A second study applying moderated APIM (APIMoM) to 233 heterosexual couples' data, showed that this bias is moderated by trust. Partners of narcissists were found to maintain their positive illusions (e.g., underestimation of narcissists' negative behaviors) only when trust was high, but not when trust was low. Narcissists did not benefit as much from trust. Results are discussed in terms of the selfregulatory goals of narcissists and their relationship partners and the possible impact of these biases on couple well-being.

### Daily Situation Perception Mediates the Link Between Romantic Partners' Narcissism and Relationship Satisfaction

Rentzsch, Katrin<sup>1</sup>; Gerlach, Tanja M.<sup>2</sup>

Previous research has shown that diverging romantic relationship outcomes of grandiose narcissism can be explained by differential associations of agentic and antagonistic aspects of narcissism. In the present research, we wanted to replicate those findings and extend them by investigating the underlying mechanisms by focusing on how narcissists perceive daily situations with their partner. In a dyadic diary study, romantic couples participated on 15 consecutive days. In the intake session, agentic and antagonistic narcissism were assessed using the Narcissistic Admiration and Rivalry Questionnaire. On each assessment day, both couple members provided perceptions of a situation the couple had experienced together. The design of the study was preregistered. A total of 182 couples reported on 2276 daily situations. Actor-partner-interdependence models revealed that agentic narcissism was positively and antagonistic narcissism was negatively related to daily relationship satisfaction. These effects were differentially mediated through a distinct set of situation perceptions: Agentic narcissism was positively linked with relationship satisfaction through perceiving daily situations as containing more romance, sexuality or love, while antagonistic narcissism's negative link with relationship satisfaction was mediated through perceiving more threat, criticism, accusation and more deception. Results are discussed in light of the NARC model and with respect to person-situation transactions in romantic relationships.

### The Mediating Role of Parenting Behavior in the Link Between Parental Narcissism and Children's Problem Behavior

Jung, Janis; Schröder-Abé, Michela

**University of Potsdam** 

Narcissism has been shown to interfere with the establishment of stable and long-lasting close relationships. Whether narcissism's antagonistic characteristics also negatively affect parent-child dyads, however, is less clear. Using data from the German Panel Analysis of Intimate Relationships and Family Dynamics (pairfam), the aim of the present study was to investigate the link between agentic and antagonistic dimensions of parental narcissism and parenting behavior. Furthermore, we investigated the potentially mediating role of dysfunctional parenting in the link between parents' narcissism and their children's problem behavior. A total of N = 2129 children and adolescents clustered within N = 994 families provided information about their parents' behavior (e.g. parental warmth; negative communication) and self-ratings of their problems in various domains (e.g. conduct problems; hyperactivity). Agentic and antagonistic narcissism was assessed by parents' self-ratings. Multilevel mediation analyses revealed that antagonistic narcissism, but not agentic narcissism, was significantly related to dysfunctional parenting behaviors, which, furthermore, were found to promote children's problem behavior. The findings contribute to a more profound understanding of the relevance of agentic and antagonistic narcissism in close relationships and highlight the importance of disentangling the distinct facets of narcissism in social relationship research.

<sup>&</sup>lt;sup>1</sup> University of Bamberg, <sup>2</sup> University of Goettingen

#### **Communal Narcissism and Social Relationship Outcomes**

#### Gebauer, Jochen E.

University of Mannheim

Much research in personality psychology has examined social relationship outcomes of classic, agentic narcissists. By contrast, little is known about the social relationship outcomes of communal narcissists. The present presentation seeks to go some way towards closing the knowledge-gap between agentic vs. communal narcissists' social relationships. In the initial publication on communal narcissism, Gebauer, Sedikides, Verplanken, and Maio (2012; p. 871) have speculated that communal narcissists "think that they are more other-oriented than others, and may show off this belief. Thus, compared to agentic narcissists, communal narcissists may make an even more favorable first impression (Morf et al., 2011). With the passage of time, however, their self-centered style (e.g., overclaiming, better-than-average self-perceptions) will be identified as such. In turn, others' realization that communal narcissists not only are self-focused but hypocritically proclaim to be particularly other-focused may render the communal narcissist particularly unpopular." Contrary to that speculation, however, Rentzsch and Gebauer (in press) conducted a large round-robin study among university students (474 self-reports, 2488 informant-reports) and found that well-acquainted peers like communal narcissists neither more nor less than non-narcissists. Yet, more recently, Rogoza and Gebauer (in prep) conducted a large social network study among high school students (248 self-reports, 6045 informant-reports) and found evidence for the original proposal (communal narcissists are liked particularly little by well-acquainted peers). The present presentation will lay out these inconsistent results and will describe a series of "person-perception experiments" designed to resolve those inconsistencies.

# The Personality Change Consortium: A framework for studying personality change

TIME 13:30 - 15:00

LOCATION Workshop-Room 3 (WS3)

CHAIRS Wiebke Bleidorn, University of California

Christopher J. Hopwood, University of California

The importance of personality for predicting life outcomes in the domains of love, work, and health is well established, as is evidence that personality traits, while relatively stable, can change. These findings imply the potential power of changing personality to improve human welfare. However, relatively little is known about the underlying sources and processes that drive changes in personality traits, and how such changes might impact important life outcomes, in part because the research paradigms and methodological approaches commonly used in personality psychology have not been designed to answer these questions. In this symposium we present the outcomes of the initial meeting of the Personality Change Consortium (PCC), an international group of researchers assembled to advance research on personality change. First, Bleidorn will discuss the policy relevance of personality change. Wagner presents new ideas for research on the sources of personality change. Back discusses the need to better understand the processes of personality change; and Zimmermann presents methodological challenges and solutions to a more rigorous examination of the antecedents and consequences of personality change. Specifically, we propose Longitudinal Experience-Wide Association Studies (LEWAS) as a framework for studying personality change that can address the limitations of current methods, and discuss strategies for overcoming some of the challenges associated with LEWAS studies.

#### Sources of personality stability and change

Wagner, Jenny<sup>1</sup>; Kandler, Christian<sup>2</sup>; Orth, Ulrich<sup>3</sup>

<sup>1</sup> Universität Hamburg, <sup>2</sup> Universität Bremen, <sup>3</sup> Universität Bern

Past research on the sources of personality stability and change has largely relied on classical differentiations between genetic and environmental (re)sources. Yet, it might not be surprising that neither certain genes nor specific environmental factors or life events can account for a substantial amount of personality differences. In this talk, we first provide a definition and integration of possible organizational schemes of sources and then review evidence for consistent effects of social relationships, work, and health on personality change. Each section will be closed highlighting existing research gaps. We conclude by arguing that researchers should acknowledge the complexity and interdependence of sources. That is, to move the field forward, future research should account for more complex, nonlinear effects of sources, for interactive effects between two or more sources, and for the possible cascading way in which different sources influence people's personality.

#### Personality development processes: A transtheoretical perspective

**Back, Mitja D.¹**; Hennecke, Marie²; Wrzus, Cornelia³ <sup>1</sup> Universität Münster, <sup>2</sup> Universität Siegen, <sup>3</sup> Universität Heidelberg

How does personality develop? Findings on concrete macro-level predictors (e.g., genes, life events) are mixed and little empirical work exists on the processes that drive personality development. Recent theoretical approaches specify different pathways and conditions under which personality traits change and stabilize. Here, we integrate these approaches and outline a transtheoretical perspective on personality development processes that can be applied to different domains and levels of abstraction of personality. We distinguish three classes of personality developmental processes. First, processes how environmental, biological, and self-concept defaults (e.g., opportunities and constraints; thresholds and attractors) are expressed as states. Second, process chains of pre-action (e.g., expectancies, goals, strategies), action (e.g., behaviors, cue-perceptions, affect), and post-action states (e.g., attributions, evaluations, reflections) that influence each other. Third, processes how states consolidate or change biological, environmental, and self-concept defaults (e.g., context selection, associative learning, habit formation, self- and life-narration). Jointly, these processes explain how changes in personality traits unfold over time; how external sources such as life events can get under the skin; and why people differ in their individual trajectories when exposed to relevant external sources. Theoretical, methodological, and practical implications are discussed.

#### Methodological challenges of personality change research

**Zimmermann, Johannes**<sup>1</sup>; Bleidron, Wiebke<sup>2</sup>; Hopwood, Christopher J.<sup>2</sup>; Jokela, Markus<sup>3</sup>; Lubmann, Maike<sup>4</sup>

<sup>1</sup> University of California, <sup>3</sup> University of Helsinki, <sup>4</sup> Ruhr-Universität Bochum

Investigating when, why, and how personality change unfolds requires sophisticated methods and enormous resources. In our presentation, we focus on four challenges that seem particularly pressing: sampling of persons and life experiences, assessment methods, frequency and timing of assessments, and experimental manipulation. To address these challenges within a single framework, we introduce the idea of Longitudinal Experience-Wide Association Studies (LEWAS). LEWAS include (1) sufficiently large, representative, and diverse samples of people with a wide range of life experiences, (2) multi-method approaches to assessing people, environments, and outcomes at different levels of analysis, (3) multiple assessment waves, with high temporal resolution of assessments ("measurement bursts") during periods when a lot of change is expected, and (4) experimental and quasi-experimental approaches to testing treatment protocols for personality change interventions. The next generation of personality change research should be organized around collaborative efforts to conduct LEWAS.

#### The policy relevance of personality change

Bleidorn, Wiebke<sup>1</sup>; Denissen, Jaap J.A.<sup>2</sup>; Lucas, Richard E.<sup>3</sup>; Roberts, Brent W.<sup>4</sup>

Personality traits are powerful predictors of outcomes in the domains of education, work, relationships, health, and well-being. The recognized importance of personality traits has raised questions about their policy relevance. Traditionally, the use of personality traits in applied settings has been predicated on their ability to predict valued outcomes, typically under the assumption that traits are functionally unchanging. This assumption, however, is both untrue and a limiting factor on using personality traits more widely in applied settings. In this talk, we present the case that traits can serve both as relatively stable predictors of success and actionable targets for policy changes and interventions. Though trait change will likely prove a more difficult target than typical targets in applied interventions, it also may be a more fruitful one given the variety of life domains affected by personality traits.

#### **Resource-Oriented Psychological Assessment**

TIME 13:30 – 15:00

LOCATION Workshop-Room 4a (WS4a)

CHAIR And Nanette Tibubos, University Center of the Johannes Gutenberg University Mainz

Well-being is not only defined by the absence of ill-health, but predominantly by the presence of positive experiences. Strivings to incorporate resource-oriented psychology in various domains of psychological research require reliable and valid assessment methods of positive psychological traits. In this symposium, we present five studies rigorously examining key components of resource-oriented traits from a methodological perspective: Facets of dispositional hope will be disentangled with refer to their argumentative validity. Representative data of self-compassion in the German population will be presented pointing out interindividual differences. Psychometric properties of optimism and pessimism assessed with the Life Orientation Test will be discussed based on large German community samples. The impact of self-compassion, optimism and pessimism on public health will be illustrated. A summary of validation studies emphasizing the incremental validity of character strengths above common personality traits such as intelligence or Big Five will be presented. Finally, new methods to extract the Big Two, agency and communion, from the Big Five will be introduced. Bringing all these knowledge together, this symposium represents state-of-the-art research on psychological assessment of resource-oriented traits.

#### Disentangling Glimmers of Hope: Analysis of the Snyder Hope Scale

**Schröder, Marvin**<sup>1</sup>; Schermelleh-Engel, Katrin<sup>1</sup>; Werner, Antonia M.<sup>2</sup>; Rohrmann, Sonja<sup>1</sup>; Tibubos, Ana Nanette<sup>2</sup>

Hope has been shown to be a meaningful coping resource when dealing with everyday hazards or chronic diseases. Most researchers in this field use the Snyder Hope Scale (SHS) to assess individual hope disposition. The SHS conceptualizes dispositional hope as a cognitive set consisting of (a) a sense of successful determination in meeting goals (agency) as well as (b) a sense of being able to generate successful plans to meet one's goals (pathways). Current literature finds high correlations between both factors, inconsistent loading patterns and varying predictive effects of the model,

<sup>&</sup>lt;sup>1</sup> University of California, <sup>2</sup> Tilbrug University, <sup>3</sup> Michigan State University, <sup>4</sup> University of Illinois at Urbana-Champaign

<sup>&</sup>lt;sup>1</sup> Goethe University Frankfurt am Main, <sup>2</sup> University Medical Center of the Johannes Gutenberg University Mainz

making it unclear through which mechanisms hope resembles a personal resource. In our research, we go about this problem by comparing a confirmatory factor model with two correlated factors with a bifactor model which separates general from specific factors in order to shed light on the question whether one or both factors explain incremental variance over and above a general factor. Results from three samples show inconsistent loading patterns, but constantly high correlations ( $r \ge .85$ ) between agency and pathways. Bifactor models yield different significant specific factors depending on the sample, indicating measurement problems of the SHS. We discuss these methodological problems as well as Snyder's hope model referring to other resource-oriented traits such as optimism, self-efficacy or locus of control are involved.

#### Individual Differences of Self-Compassion in the German General Population

Wernen, Antonia M. <sup>1</sup>; Tibubos, Ana Nanette<sup>1</sup>; Ernst, Mareike<sup>1</sup>; Beutel, Manfred E. <sup>1</sup>; Brähler, Elmar<sup>2</sup>

<sup>1</sup> University Medical Center of the Johannes Gutenberg University Mainz, <sup>2</sup> Universität Leipzig

Self-compassion represents a relevant personal resource with potentially protective effect against psychopathological symptoms. Yet, there are few studies examining individual differences of selfcompassion in representative community samples. Therefore, the current study tested for possible mean differences in the positive (self-compassion) and negative factor (self-coldness) of the Selfcompassion Scale (SCS) regarding socio-demographic factors in a representative sample of the German general population (N=2510, 53.6% female) aged between 14 and 91 years (M=49.38; SD=18.00). Beyond that, the two self-compassion components were investigated as predictors for depressive symptoms controlling for socio-demographic factors. All data were collected in a national survey via self-report covering health-related and social issues. Analyses of Variance were computed for group differences, while several multiple regression models took place for the investigation regarding self-compassion and depressive symptoms. There were some significant, yet no clinically relevant sex, age, educational, and income level differences regarding self-compassion in the sample. Self-compassion and self-coldness explained variance in nine different symptoms of depression, with self-coldness having more impact. Results are discussed in terms of their clinical implications regarding the treatment of depressive symptoms as well as how they inform mental health-related aspects in community prevention programs.

#### Psychometric Properties of the Life Orientation Test (LOT-R)

#### Hinz, Andreas

Universität Leipzig

The Life Orientation Test-Revised (LOT-R) was designed to assess dispositional optimism. It consists of two short subscales: optimism and pessimism. The aims of this study were to test psychometric properties of the LOT-R, to provide normative scores, and to test the association between optimism and several psychological, sociodemographic, and behavioral factors. A randomly selected German general population community sample with an age range of 18-80 years (N = 9,711) was surveyed. The confirmatory factor analysis (CFA) proved two (correlated) factors: optimism and pessimism. Invariance tests across gender and age groups confirmed metric invariance. The correlation between optimism and pessimism in the total sample was weak (r = -.22), however, for the subgroups of people younger than 39 years (r = -.50) and for people with at least 12 years of school education (r = -.38) the correlations were stronger. There were only small gender differences in the LOT-R total score (M = 16.4 for females and M = 16.1 for males; effect size: d = 0.08). Low optimism mean scores were observed for unemployed people, people with low income, smokers, and obese people. Normative scores of the LOT-R are provided. The study confirmed the bidimensional structure of the LOT-R and invariance across age and gender. It is a matter of debate whether it is justified to calculate a LOT-R total score.

#### **Character Strengths**

#### Harzer, Claudia

Universität Greifswald

Character strengths are positively valued, narrow personality characteristics (e.g., being friendly, honest, and/or persistent), that are trait-like and valued in their own right (Peterson & Seligman, 2004). Character strengths manifest in individual behaviors (e.g., working well in a team), thoughts (e.g., looking positively ahead), and feelings (e.g., being grateful for getting a scholarship). They are seen as the inner determinant of a fulfilled life, in addition to external factors like a stable social environment or financial security (Peterson, 2006). Character strengths determine how individuals cope with adversity (Peterson & Seligman, 2004, p. 17). The Values in Action Inventory of Strengths (VIA-IS; Peterson, Park, & Seligman, 2005; German version: Ruch, Proyer, Harzer, Park, Peterson, & Seligman, 2010) is a self-report questionnaire that measures 24 character strengths. The present paper summarizes various studies highlighting the reliability (i.e., internal consistency, test-retest) and validity (e.g., convergent, discriminant, criterion) of the VIA-IS. For example, 24 subscales had high reliability. Self- and peer-ratings of character strengths converged well. Across various language versions and study designs the VIA-IS scales showed replicable pattern of relations with various dimensions of well-being. Furthermore, the scales of the VIA-IS were related to coping with stress at work as well as predicted job performance above intelligence and the Big Five.

#### **Extracting the Big Two from the Big Five: A Four-Way Competition**

Entringer, Theresa M.1; Gebauer, Jochen E.1; Paulhus, Delroy L.2

<sup>1</sup> Universität Mannheim, <sup>2</sup> University of British Columbia

Agency (e.g., dominance, competence, drive) and communion (e.g., warmth, morality, cooperation) are the "Big Two" content dimensions in psychology. The Big Two figure prominently in many psychological realms (personality, social psychology, psychology of self, motivation science, gender studies, cross-cultural psychology, etc.). In contemporary research, however, personality traits are usually assessed with Big Five measures. We show that the Big Two can be measured effectively with items extracted from the popular Big Five Inventory (BFI; John & Srivastava, 1999; Soto & John, 2017). Because standard factor analysis failed, we applied four alternative scale-construction methods: the expert rating method, the target scale method, the ant colony method, and the brute force method. Across three samples (total N=942), all four methods yielded respectable Big Two scales. Our research provides four contributions. First, it shows most directly that the Big Two are represented fully within the Big Five. Second, it deepens our conceptual understanding of the Big Two, by showing which Big Five factors, facets, and nuances are key to which Big Two trait. Third, it enhances knowledge of the four alternative scale-construction methods in the realm of personality. Finally, and most practically, our new measures allow researchers to examine Big Two hypotheses with extant BFI datasets, including those collected previously in their own labs as well as openly accessible, largescale datasets.

#### **Paper Session 2: Well-being**

TIME 13:30 – 15:00

LOCATION Workshop-Room 4b (WS4b)

CHAIR Monika Fleischhauer, MSB Medical School Berlin

### Character strengths are related to achievement, well-being, and relationships at school above the influences of intelligence and personality traits of the five factor model

Wagner, Lisa; Ruch, Willibald

Unversität Zürich

There is a growing interest in understanding non-cognitive predictors of educational outcomes. The present study establishes the association of character strengths (i.e., positively valued personality traits) with flow experiences and positive relationships at school (with classmates and teachers). It also extends previous findings on the relationships of character strengths with academic achievement and school satisfaction by demonstrating the incremental validity of character strengths beyond the most powerful cognitive and non-cognitive predictors of academic achievement, general mental ability and personality traits of the five factor model. Secondary school students (N = 190; 46% male; mean age = 14.47 years) completed an intelligence test (PSB-R 6-13; Horn, Lukesch, Mayrhofer, & Kormann, 2004), self-report measures of character strengths (VIA-Youth; Park & Peterson, 2006) and personality traits (IPIP-Junior; Mlačić, Milas & Kratohvil, 2007), as well as of school satisfaction, flow at school, and positive relationships with peers and teachers (twice, three months apart). School offices provided data on academic achievement. Results of multilevel analyses indicate that many character strengths predicted the outcomes even above the influences of cognitive ability and the personality traits of the Five Factor model. Overall, the character strengths of love of learning, perseverance, and fairness showed the most consistent relationships across the different outcomes, but most of the 24 character strengths showed meaningful associations with at least one of the outcomes. Taken together, these results suggest that character strengths are relevant personal resources for achievement, well-being, and relationships at school.

### How your parents influence your well-being – Pathways from parenting behavior to offspring satisfaction including a genetic perspective

Hahn, Elisabeth<sup>1</sup>; Gottschling, Juliana<sup>2</sup>; Iser, Julia; Spinath, Frank M.<sup>1</sup>

Subjective well-being is influenced by a multitude of factors often attributed to either nature or nurture. Parenting – as the perceived emotional climate – is traditionally considered as a component of the family environment, which has been shown to be a meaningful predictor for developmental outcomes in offspring, including subjective well-being. However, the characterization of parenting as "purely environmental" has been challenged since studies have revealed genetic contributions to parenting, suggesting underlying genotype-environment correlation. Moreover, different perspectives on parenting have shown differential effects regarding the predictive power and relative contribution of genetics. Therefore, the present study investigates the predictive validity of different parenting dimensions for life satisfaction in three age groups (11, 17 and 23 years) from early adolescence to young adulthood. We used data from two waves of the German twin-family study TwinLife (N= 3,078 families) with ratings on maternal and paternal parenting behavior (wave 1) and satisfaction (wave 1 and 2). Analyses revealed consistent positive effects across groups for maternal and paternal emotional warmth. Also, depending on the developmental stage differential effects for

<sup>&</sup>lt;sup>1</sup> Universität Saarland, <sup>2</sup> Université du Luxembourg

other parenting dimensions were found. To investigate whether parenting contributes to differences between family members rather than similarities, we further applied a twin difference model. The results showed that differences in parenting can directly predict differences in life satisfaction controlled for genetic and family similarities. In addition, we tested for moderating effects of e.g., family functioning characteristics. Results are discussed with respect to genetic and environmental transmission pathways for parenting influencing well-being in offspring.

### Many paths lead to happiness: The complexity of happiness conceptualizations affect the success of well-being related intentions and behaviors in everyday life

Krasko, Julia; Intelisano, Sabrina; Luhmann, Maike

Ruhr-Universität Bochum

Can we choose to be happy? To date we have no definite answer to this very old question. In this study, we tested a theoretical model of the pursuit of happiness and well-being (HWB). We proposed that whether and how people pursue HWB depends on how they define happiness for themselves. These individual definitions of HWB should translate into intentions and consequently into actual well-being related behaviors in everyday life. Finally, well-being related behaviors were expected to affect the actual level of daily well-being. Here, we present central findings of a preregistered study testing this theoretical model in everyday life. Using experience sampling methodology, we collected current activities (k = 15480) on five occasions each day over a period of one week (k = 15480). Particularly, we were interested in whether these activities were conducted to affect HWB intentionally. Using multilevel modelling, the results support our preregistered hypothesis: Individual definitions of happiness are predictive of intentions and well-being related behaviors in everyday life. Further, the engagement in well-being related activities is associated with higher daily well-being.

#### Need for cognition as a protective factor against severe health risks in (sub-)clinical samples

Fleischhauer, Monika; Hadj-Abo, Alexander; Enge, Sören

MSB Medical School Berlin

Need for cognition (NFC) refers to individual differences in cognitive engagement. Among others, individuals high in NFC have been shown to actively search for information and to prefer complex to simple tasks. Proceeding from the conceptualization and the correlates of NFC, we investigated its role as potential personality-related resilience factor for health risks in (sub-)clinical samples. In a population-wide sample of 4,134 individuals (Study 1) and in a sample of 125 students (Study 2) we found evidence that NFC may protect against work-related stress and burnout symptoms. Here, NFC was consistently negatively related to the burnout facets of the Maslach burnout inventory and explained up to 10% additional variance in burnout symptoms over and above the Five-factor model of personality. In a further study (Study 3) with 77 type 2 diabetes patients we investigated the role of NFC in diabetes disease. Because diabetes self-management is a complex issue that requires the integration of much information, we expected NFC to promote self-reported diabetes selfmanagement and glycemic control as indicated by a long-term blood glucose control marker. As expected, our results suggest that NFC facilitates diabetes self-management and glycemic control. Interestingly, NFC explained even more criterion variance than impulsivity that was identified by previous studies as important personality factor for diabetes self-management. Overall, our series of studies indicate that NFC contributes to resilience against severe health risks. Additionally, situationand personality-related factors that may moderate or mediate the role of NFC as resilience factor in these health-related contexts are discussed.

### Fitting in to stay fit and happy! - How does the person-environment fit influence sport satisfaction and well-being in the context of sports?

Terwiel, Sophia<sup>1</sup>; Rauthmann, John F.<sup>2</sup>; Luhann, Maike<sup>1</sup>

The term person-environment fit describes the compatibility between characteristics of an individual (e.g. personality) and the environment (e.g. job demands). In the organizational context a good match between an employee's personality and job demands has been found to lead to higher productivity, higher income, and higher well-being. In the context of sports this interaction has so far been insufficiently investigated. As the general participation in sport and physical activity is associated with higher well-being, we tested the assumption that a good person-environment fit in the context of sports does not only result in higher sport-specific satisfaction but also in higher overall subjective well-being. In a first step, 5,072 experts, more precisely athletes of 103 different sports, characterized the prototypic Big Five personality profile of an athlete of their main sport using the BFI-2-S. In a second step, 4,912 actual athletes' personality profiles were collected in an online survey. The person-environment fit was calculated using multilevel response surface analyses. The results indicated that the fit between an athlete's actual personality characteristics and the prototypic sport-specific personality characteristics influence an athlete's sport satisfaction, as well as his or her general subjective well-being.

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#### Tue 17 September

#### State of the Art Session: State of the Art Session: Person-Situation-Transactions

TIME 09:00 - 10:30

LOCATION Main Hall (MH)

CHAIRS Gabriela Blum, Technische Universität Dresden

John F. Rauthmann, Universität zu Lübeck

The topic of person-situation transactions has concerned psychological research for several decades. This state-of-the-art session summarizes how far research has come in this area. In preparation for the session, we asked several international experts for their opinion on some of the core issues. We will also give colleagues the opportunity to speak at the session. The following questions will be addressed: 1. On what issues have we actually achieved a broad consensus? There seems to be agreement only on some very broad points: Statements such as "interaction is important and more complex than expected" or "the perception of situations plays a role" might be called consensual. Experts also seem to agree that even if there is consensus on a certain issue, this does not mean that further research is not necessary. (Discussant: Manfred Schmitt) 2. Which questions have not yet been answered and should be dealt with next? There are many directions in which the experts we consulted would like to expand their research. One is that many experts regard the assessment of situations as an important area of growth. Others find it promising to explore the mechanisms of person-situation transactions in more detail. The importance of investigating real-life consequences is also emphasized. (Discussant: Christian Kandler) 3. What methods can we use to answer these important questions? Depending on the question that is to be answered, respectively, the methods that should be used also differ. A joining of forces through more collaboration, however, is certain to be advantageous in any case. (Discussant: Kai Horstmann)

#### Current advances in research on the multidimensional forcedchoice format: Test construction and reducing faking

TIME 09:00 – 10:30

LOCATION Workshop-Room 1 (WS1)

CHAIRS Eunike Wetzel, Universität Wien

Matthias Ziegler, Humboldt Universität zu Berlin

The multidimensional forced-choice (MFC) format has been proposed as an alternative to the popular rating scale format, which suffers from drawbacks such as a high susceptibility to response biases. In the MFC format, two or more items measuring different traits are presented simultaneously to the respondent. The respondent's task is to either rank the items with respect to how well they describe him or her or choose the one that describes him/her best and least. The goal of this symposium is to provide an overview of current research on the MFC format with a particular focus on test construction issues and comparing the MFC format to rating scales regarding faking. In the first talk, Leonard Schünemann will address the challenges of test construction with the MFC format and present data on calibrating the resulting personality questionnaire with the Thurstonian item response model. Next, Matthias Ziegler will describe the construction process of fake-proof MFC measures of occupational competencies, vocational interests, and the Big Five, and present reliability and validity evidence for scores on the resulting questionnaires. Carina Gargitter's talk will focus on comparing classical test theory and item response theory scoring of an MFC personality questionnaire regarding validity. Finally, Eunike Wetzel will present a study comparing the susceptibility of the MFC format with triplets and the rating scale format to socially desirable responding and intentional faking.

### A test constructors guide to multidimensional forced choice questionnaires: from ipsative to normative using a Thurstonian IRT approach

Schünemann, Leonard; Matthias Ziegler

Humboldt Universität zu Berlin

Response distortion poses a substantial threat to reliability and validity of questionnaire results, leads to biased interpretation, and confounds decisions in personnel selection. Especially Likert-type scales are prone to being influenced by faking. Utilizing Forced Choice (FC) response formats offers one way of mitigating such effects, if it was not for the ipsativity of results derived from classical scoring of this response format. Though this is a well-known fact, a plethora of questionnaires featuring FC formats are used by practitioners. The ipsativity of results prohibits interindividual comparisons, rendering them useless for selection purposes. However, applying Thurstonian IRT (TIRT) allows to restate the normativity of scores and therefore paves the way for interindividual comparisons again. However, there are important prerequisites, challenges, and pitfalls for successfully designing multidimensional FC questionnaires. In this article we share our experience and knowledge gained by designing a multidimensional FC personality questionnaire. An already existing inventory was redesigned to implement a multidimensional FC format and was then calibrated using TIRT on a sample of N=547. Results on quality of trait recovery, structural and convergent validity are presented, and experiences made during test construction are shared. Practical and theoretical implications for test constructors and further research will be discussed.

### Measuring Occupational Competencies, Vocational Interests and the Big Five Using a Fake-Proof Forced Choice Format: Technical Details and Practical Examples

#### Ziegler, Matthias

Humboldt Universität zu Berlin

The constructs targeted by assessments in different stages of the HR lifecycle often all focus personality, interests, and all sorts of occupational competencies. Yet, it is not unusual that the different HR lifecycle stages are not closely interwoven, resulting in unconnected assessments. This in turn necessitates further assessments for each new developmental step an employee takes. The current research project was conducted to provide assessments that overcome these limitations. Additionally, the measures were built to be fake-proof. Finally, we also aimed at accelerating the development of job profiles by exploiting the public use O\*net data bases. Three measures were developed targeting occupational competencies, vocational interests, and Big Five personality. Here reliability as well as validity evidence for the questionnaire scores will be presented. The O\*NET information was utilized to develop a generic competence framework. Several exploratory factor analyses were conducted according to the bass-ackwards method resulting in 29 competence areas. Due to the detailed descriptions provided for approximately 1000 jobs it was possible to project the 29 competencies onto the constructs captured in the questionnaires. Practical and theoretical implications will be drawn.

#### Item Response Theory and Classical Test Theory in the Analysis of Ipsative Data

#### **Gargitter**, Carina

Universität Salzburg

The Thurstonian item response model (IRT) promises to overcome the dependences of ipsative data structure, especially compared to the results gained by approaches based on Classical Test Theory (CTT). According to recent literature, the IRT approach should lead to a better factorial, construct, and criterion-related validity, as the CTT approach produces distorted validities when applied to ipsative data. Data of a forced-choice personality questionnaire was analyzed with the IRT approach and compared to results gained by CTT. Embedded in an admittance test of a private university in Austria, datasets of two years were used: 2017: n = 776; 2018: n = 856. Additional tests from the admittance

tests were used to validate the findings of the CTT and IRT approach. The hypothesized better validity scores, except factorial validity, by the IRT approach could not be confirmed, but the assumed distorted validity by the CTT approach could be confirmed. Challenges in test construction and as well in scaling emerged, which will be discussed regarding the forced-choice format.

Is the multidimensional forced-choice format fake-proof? Comparing the susceptibility of the multidimensional forced-choice format and the rating scale format to socially desirable responding and intentional faking

Wetzel, Eunike<sup>1</sup>; Frick, Susanne<sup>2</sup>; Brown, Anna<sup>3</sup>

<sup>1</sup> Universität Wien, <sup>2</sup> Universität Mannheim, <sup>3</sup> Universität Kant

The multidimensional forced-choice (MFC) format has been suggested as an alternative to the rating scale (RS) format that might be less susceptible to faking. The goal of this study was to compare the susceptibility of the MFC and RS format to socially desirable responding (SDR) in a low-stakes context as well as explicit faking in a simulated high-stakes scenario. Participants were randomly assigned to one of three versions of the Big Five Triplets (BFT): MFC-matched (all triplets consisted of items of equal desirability, N = 593), MFC-mixed (7 triplets contained a desirable item in addition to two neutral ones, N = 652), and RS (N = 622). Participants first filled out the BFT under a neutral instruction. These data were used to compare mean item ranks between the matched and mixed triplets. On average, desirable items were ranked higher than neutral items. After filling out other instruments, participants received a fake good instruction followed by a second administration of the BFT. Estimates of mean differences between the neutral and fake good instruction were obtained from the Thurstonian item response model for MFC data and the graded response model for RS data. Mean differences between the neutral and fake good instruction were larger for the RS format compared with the MFC format across all Big Five domains. The MFC format is not fake-proof, but, due to the ranking task, it is not possible to fake all traits simultaneously or equally strong as in the RS format.

# All under one roof: methodological and applied research in personality and psychological assessment

TIME 09:00 – 10:30

LOCATION Workshop-Room 2 (WS2)

CHAIRS Florian Pargent, Ludwig-Maximilans-Universität München

Markus Bühner, Ludwig-Maximilans-Universität München

Since the invention of factor analysis, the field of personality and psychological assessment has always embraced methodological developments. In this symposium, we present both methodological and applied research from all core disciplines of the DPPD: Florian Pargent revisits classical methods from (Bayesian) decision theory to analyze the 95%-Cl decision rule in psychological assessment and discusses a more explicit weighting of decision errors. In a second methodological talk, David Goretzko applies predictive modeling to determine the number of true factors in exploratory factor analysis more accurately than traditional approaches like parallel analysis. This demonstrates how machine learning can be used as a tool to augment established methods and research strategies. On a similar note, Lena Schiestel makes use of a pretrained machine learning algorithm to automatically code indirect motives in her investigation of whether people can reflect on their accuracy when assessing own motives. To predict demographics and personality traits, Larissa Sust relies on the capability of machine learning models to handle numerous indicators of music listening behavior logged on smartphones. Promising more ecologically valid reports of inter- and intraindividual differences, smartphones can also be used to collect high frequent self-reports. In the final talk, Caroline Zygar presents results from two dyadic experience sampling datasets to compare relationship satisfaction measured five times daily with a single retrospective evaluation of the complete study period.

#### The 95%-CI decision rule in psychological assessment from a decision theoretic perspective

Pargent, Florian; Goretzko, David; Friemelt. Benedikt

Ludwig-Maximilans-Universität München

Psychological assessment sometimes requires a dichotomous decision, whether a person is "below the norm" in some psychological domain. One common decision rule is whether the upper boundary of a 95% confidence interval for the person's true value lies below the 16% quantile (one standard deviation below the mean of a normal distribution) based on the distribution of the true values in the population. We demonstrate how the 95%-CI decision rule can be interpreted from the perspective of (Bayesian) decision theory: it is equivalent with minimizing expected loss when considering the type I error as 39 times more severe than the type II error. Many practitioners might not be aware of this implicit assumption. Thus, mindlessly applying any default rule can lead to diagnostical decisions which are not in line with the diagnostician's judgement of the possible negative consequences of decision errors in the concrete setting. In fact, "rational" optimal decisions would require an explicit weighting of those errors. To stress this point, we present a small survey of clinical neuropsychologists, who had to report different representations of their internal loss function for a fictitious diagnostical scenario. We look at how much these judgements differ between practitioners and how much decisions based on practitioners' "true" loss functions differ from the 95%-CI rule.

#### The Factor Forest: determining the number of factors in Exploratory Factor Analysis with treebased machine learning algorithms

#### Goretzko, David

Ludwig-Maximilans-Universität München

Finding the right number of factors in exploratory factor analysis is crucial for the correct interpretation of the final factor solution in applied research. As common factor retention criteria perform best under different conditions, it is often recommended to combine them. This can be unsettling for practitioners and risks potential misusage or misinterpretation of empirical data. Therefore, a new approach is proposed combining extensive data simulation with machine learning algorithms to find a predictive model that is able to identify the true number of factors under a broad range of conditions. Training data was simulated based on realistic conditions in psychological research. Two ML algorithms (random forest and gradient boosting) were trained using tailored features based on the observed correlation matrix of the simulated "empirical" data. In a large-scale simulation experiment, the new approach was compared to common factor retention criteria – the Kaiser Criterion, the Empirical Kaiser Criterion, Parallel Analysis and the Comparison Data approach. Sample sizes, numbers of variables per factor, correlations between factors, primary and secondary loadings, as well as the "true" number of factors were varied to gain comprehensive insights on the robustness of our new method. Extreme gradient boosting (XGBoost; Chen & Guestrin, 2016) outperformed all common factor retention criteria with regard to accuracy and bias of dimensionality estimation.

#### **Knowing our motivational congruence**

Schiestel, Lena; Schönbrodt, Felix

Ludwig-Maximilans-Universität München

Motivational self-knowledge can be understood as the accurate explicit representation (assessed via self-reports, i.e. questionnaires) of one's implicit motives (assessed via indirect measures, i.e. the Picture Story Exercise). Typically, the correlations between these measures are miniscule (with a 1.7% of shared variance; Köllner & Schultheiss, 2014) - which indicates that we should not be too optimistic about the accuracy of our own motivational self-assessments. In the domain of personality traits people seem to be aware of the direction and magnitude of their biases and are capable of more

accurate self-perceptions when prompted (Bollich, Rogers & Vazire, 2015). But do we also have insight in our motivational accuracy? We examined this question in a large, preregistered online-study and present the results for the affiliation, achievement and power motive including a comparison of automatic codings with machine learning algorithms (Schönbrodt, 2017) and expert codings of the PSE-stories (the indirect motive measure). This presentation invites researchers to reflect and discuss the implications of self-reports as measures of psychological constructs.

### The soundtrack of who you are: predicting individual differences from natural music listening behavior

Sust, Larissa; Stachl, Clemens

Ludwig-Maximilans-Universität München

Music listening is of great interest to personality psychology as individuals differ strongly in their music listening habits. This study investigates whether individual differences can be inferred from music listening behavior on smartphones. In particular, we analyzed an existing mobile sensing dataset containing music listening records of 320 Android users. We extracted a total of 231 variables describing the amount of participants' music consumption and their musical preferences represented by objectively computed audio features retrieved from Spotify. These variables served to predict demographics, as well as self-reported personality scores in terms of the Big Five taxonomy and Sensation Seeking. We applied a machine learning approach and evaluated cross-validated model fit considering the accuracy of out-of-sample predictions. Even though the overall prediction performance was low, our data suggest that gender, as well as the personality dimension Openness on factor and facet level, can be predicted from music listening on smartphones above chance. Additional analyses of variable importance measures revealed generally trait-congruent relationships between certain audio features and predicted outcomes. To conclude, our study establishes the analysis of objectively retrieved audio features from mobile sensing logs as an ecologically valid way to assess natural music listening behavior in relation to psychological constructs.

### Assessing relationship satisfaction with experience sampling: achieving accuracy and reducing bias

**Zygar, Caroline**; Schönbrodt, Clemens *Ludwig-Maximilans-Universität München* 

The assessment of traits can be approached in various ways, but is most commonly achieved by relying on self-reports of individual's global representations of their behaviors and experiences. For many psychological constructs, such global evaluations should correspond to daily experienced states, as Fleeson (2001) for example thoroughly explicates in the description of personality traits as density distributions of states. Still, individuals are biased, making errors when it comes to describing their past. This shows in discrepancies between individuals' reported experience in ESM and their recall of that time. Global evaluations as they are commonly used in trait assessments may introduce similar biases, because individuals have to average across even more time and situations. As a lot of emotional experiences happen within relationships, in two dyadic experience sampling studies (N = 130 and N = 510) we examined the associations between individual's momentary relationship satisfaction measured five times a day for two and four weeks, their retrospective evaluation of the study period and their global assessment of the relationship. We present (1) the relationship of different summary statistics of state relationship satisfaction with retrospection and global evaluations; (2) the mean-level bias occurring in retrospection; (3) moderation of this bias by global relationship satisfaction and traits; (4) how the sampling design and the number of ESM surveys influences how representative the state assessments are. Our results inform researchers about the advantages and limitations of ESM measures, the influence of individual differences on the retrospection of past relationship satisfaction experiences and provide evidence on designing highly accurate ESM studies.

#### **Tangled Up in You**

TIME 09:00 – 10:30

LOCATION Workshop-Room 3 (WS3)

CHAIRS Markus Mund, Friedrich-Schiller-Universität Jena

Cornelia Wrzus, Universität Heidelberg

In their everyday life, individuals are very often surrounded and influenced by other people, such as friends, coworkers, or a romantic partner. These relationships constitute the immediate social environment of individuals and contribute to their behaviour and their development. Importantly, strong interdependencies can exist between interaction partners' personality, how it is enacted in their behaviour, perceived by other individuals, and, thus, influencing others' behaviour and development. The present symposium compiles research on the interplay between personality and a broad range of social relationships across the lifespan. Braun and von Oertzen present results on the effects of a mentoring relationship on the empathic accuracy of adolescent mentorees. Rau et al. investigate how perceptions of others influence the behaviour of individuals in newly formed groups. Mund et al. present research on the behavioural manifestations and partner perceptions of loneliness in friendship dyads. Bühler et al. examine age differences in personality-relationship transactions in romantic relationships. Finally, building on self-report and physiological data gathered in an experience-sampling approach, Drewelies et al. examine dyadic dependencies regarding the association between control beliefs and levels of cortisol in long-term couples. The presented studies help to advance the understanding of the interplay between personality, social relationships, interpersonal perceptions.

### **Empathic Accuracy in Youth Mentoring Dyads Braun, Tina**

Universität der Bundeswehr München

Past evaluations of youth mentoring programs were based almost exclusively on questionnaires. This led to the neglect of constructs which cannot be investigated properly in this manner, like empathic accuracy. We hypothesize that the strong bond between adult mentors and underage mentees has a positive effect on the mentees' ability to correctly identify emotions displayed by others. To this end, we invited 17 mentoring dyads into our lab, showing them short film clips in which a person describes an emotional experience. Afterwards, the participants were asked to rate the protagonist's feelings based on twelve adjectives. These scores were then compared to the original scores of the protagonists using intra-class-correlation. Mentees completed this task on their own, alone in one condition and in the presence of the mentor in the other condition. In a third condition, the mentors also completed the tasks alone. In addition, the mentors were asked to correctly identify emotions displayed by pictures of adult and children faces. The results support our hypothesis, as the mentees reached significantly higher scores when their mentor was present than when he was absent. In addition, there were first indications that spending extensive time with their mentee might allow the mentors to judge emotions on children's faces better than on adult faces, suggesting that the experience of being a mentor might allow adults to tune in on the emotional experience of children.

### Does Perceiving Others as Low in Agency Trigger Self-Promoting Behavior in Newly Formed Groups?

#### Rau, Richard

Universität Leipzig

In low-acquaintance group settings, individuals who perceive others as low on agentic attributes such as dominance or assertiveness are often seen as being high on these attributes themselves. A possible explanation is that individuals have the tendency to display behaviors that complement their

perceptions of the other group members (e.g., engaging in more overt self-promotion when others are perceived as low in agency). To test this possibility, we ran an experimental study (N = 207) with participants nested in groups of three or four individuals and used a cover story that made them believe that their group members were either high or low in agency. Subsequently, self-introduction videos were recorded, ostensibly to be viewed by their group members. As the dependent variable, observers rated the degree of arrogance (i.e., bragging, overconfidence) participants displayed during the self-introduction. In contrast to our hypothesis, the experimental condition had no significant effect on arrogant behavior. Implications concerning the causal mechanism underlying reciprocity in agency judgments are discussed.

### Loneliness in (Inter)Action: Interpersonal Behaviour and Partner Perception in Friendship Interactions

#### Mund, Marcus

Friedrich-Schiller Universität Jena

Loneliness occurs when individuals perceive their relationships to be deficient either in terms of quantity or quality. Previous research has shown that inter-individual differences in loneliness are stable and directly affect social relationships. For example, several studies have found that loneliness is associated with more negative perceptions of concrete interactions and the overall quality of partner relationships and friendships. Furthermore, the self-other agreement on measures of loneliness is as high as for personality traits such as extraversion. As of yet, however, it is unknown (a) which concrete behavioural cues make the loneliness of one person detectable for an interaction partner and (b) which concrete interpersonal dynamics result from dispositional loneliness. To address these questions, we observed the interactions within 58 female friendship dyads in a laboratory setting. In the laboratory, the friendship dyads were asked to discuss four questions for a total time of 15 minutes. The discussions were videotaped and several behavioural (e.g., eye contact, nodding) and verbal (e.g., sighing, interrupting the partner) aspects of the interaction were coded. In addition to those observational data, self-report data on dispositional loneliness, overall friendship quality, and the quality of the interaction were gathered. The results provide insights into the observable manifestations of loneliness and how they are perceived by close others.

### Personality-Partnership Transactions Across the Adult Life Span

#### Bühler, Janina Larissa

Universität Basel

Personality and romantic relationships are bound through transactional ties: Personality has been shown to affect people's experiences in romantic relationships; at the same time, romantic experiences have been found to shape people's personality. Given that personality-partnership transactions have mostly been investigated among young adults, it remains open whether these transactions differ later in life. To test these age-related effects on transactions, we used data from the longitudinal cohort study SOEP: N=14,496 participants (18-96 years) provided self-reports on their traits every 4 years and indicated their relationship status and satisfaction every year. The findings revealed that people with higher scores in extraversion, emotional stability, and openness were more likely to enter a new relationship within the next 4 years; the effect of openness was more pronounced with older age. In terms of partnership experiences predicting trait changes, our findings dovetailed with previous findings in young adults. Yet for middle-aged and older adults, the effects were less pronounced and were related to different personality characteristics compared to young adults. Overall, our findings indicate that apparently similar relationship experiences—the transition into or out a romantic relationship—are related to different predictors and outcomes depending on the age under consideration.

## Daily-Life Associations Between Control Beliefs and Diurnal Cortisol in Older Couples Drewelies, Johanna

Humboldt Universität zu Berlin

It is well established that daily perceived control is closely intertwined with lower stress hormone secretion among older adults. However, it is an open question whether control perceptions of one's significant other are also uniquely associated with one's own health. To examine this question in dyads of older long-term partners, we make use of data obtained 6 times a day over 7 consecutive days as participants went about their everyday lives (N = 80; mean age = 75 years; mean relationship length = 46 years). Our multilevel actor–partner models for dyadic data analyses covary for relevant individual and couple differences in sociodemographic characteristics, self-reported physical health, and cognitive functioning. Extending earlier reports, actor-level results reveal that higher perceived control was associated with smaller daily cortisol output (area-under-the-curve, with respect to ground), but only among older women in our sample. Most importantly, we found that higher perceived control of the partner is additionally and uniquely associated with smaller daily cortisol output of the actor for both men and women. We discuss possible mechanisms and underlying pathways of how perceived control may help both partners downregulate physiological manifestations of stress in daily life. We close by considering conceptual and practical implications.

#### The assessment of narcissism, Machiavellianism, and psychopathy

TIME 09:00 – 10:30

LOCATION Workshop-Room 4a (WS4a)

CHAIRS Michael P. Grosz, University of Münster

Mitja D. Back, University of Münster

Research on the Dark Triad (narcissism, Machiavellianism, and psychopathy) has surged since the introduction of the Dark Triad in 2002. As pointed out by Miller, Vize, Crowe, and Lynam (2019), Dark Triad research suffers from several limitations such as over-reliance on convenience samples and indistinctness between current measures of Machiavellianism and psychopathy. The current symposium presents new developments in Dark Triad research addressing these issues. First, Caroline Wehner will present a comparison of five theoretically plausible models of the Dark Triad - within the regular and an ultrashort version of the Short Dark Triad. Second, David Tegethoff will present a validation study of a German version of the Dirty Dozen in a large representative sample. Third, Michael Grosz will present the scale development of a new Machiavellianism and a new psychopathy scale that show less overlap with each other than established Mach and psychopathy scales do. Fourth, Lina Jallalvand will present a validation study of a short version of the Narcissistic Admiration and Rivalry Questionnaire (NARQ-S) in a criminal offender sample. Fifth and finally, Isabel Hartmann will present the construction and validation of the content-specific Narcissistic Admiration and Rivalry Questionnaire (NARQ-C).

### The Development of a Short Scale - Exploring the Nomological Network of the Short Dark Triad (SDT) and the Ultrashort Dark Triad (uSDT)

Wehner, Caroline<sup>1</sup>; Maaß, Ulrike<sup>2</sup>; Leckelt, Marius<sup>3</sup>; Back, Mitja<sup>4</sup>; Ziegler, Matthias<sup>1</sup>

<sup>1</sup> Humboldt-Universität zu Berlin, <sup>2</sup> University of Potsdam, <sup>3</sup> University of Mainz, <sup>4</sup>University of Münster

For the development of a short scale psychometric properties and the nomological network of the construct in focus need to be considered. To incorporate both, we compared five, theoretically plausible models of the Dark Triad - first within the Short Dark Triad (SDT, 27 items), and then in an ultrashort version (uSDT, 9 items), which we developed. The sample of N = 969 participants was randomly split in half, to test all five models in the first half, and then confirm the results with the

second half. A three-factor model, with separate factors for psychopathy, Machiavellianism, and narcissism, and a bifactor model, with an added general dark trait factor fitted best. In a next step the nomological network was tested including scores for other Dark Triad measures, as well as scores for narcissism, sadism, impulsivity, self-esteem, sensation seeking, Big Five, DSM-5 maladaptive personality traits, sociosexual orientation, and behavioral criteria. Here the three-factor model showed the highest overlap with our pre-registered assumptions. Then the same approach was applied for the uSDT, and both versions were compared. The highest overlap of expected relations between SDT and uSDT scores to scores from convergent and discriminant measures was also found for the three-factor model, which confirmed its utility.

### Naughty but (Psychometrically) Nice? Validation of the German Version of the Naughty Nine Short Scale and its Associations with Mental Health Variables in a Representative Sample

Tegethoff, Daniel<sup>1</sup>; Leckelt, Marius<sup>2</sup>; Allroggen, Marc<sup>3</sup>; Küfner, Albrecht C. P.<sup>1</sup>; Back, Mitja D.<sup>1</sup>

Over the past two decades research on the Dark Triad, which is composed of the three socially aversive personality traits narcissism, Machiavellianism, and psychopathy, has gathered momentum. Given that a comprehensive understanding of dark traits requires the simultaneous assessment of all three constructs, and that resources are limited in most research contexts, there is a particular need for validated brief scales that capture all three Dark Triad constructs. The aim of this study is the validation of the Naughty Nine (Küfner, Dufner, & Back, 2015), a German 9-item version of the Dirty Dozen (Jonason & Webster, 2010), in a representative sample (N = 2,513). Results of confirmatory factor analysis suggest good model fit of both, a model with three correlated factors, and a bifactor model. Furthermore the Naughty Nine shows good internal consistencies of the subscales, and satisfactory convergent and discriminate relations to gender, narcissistic admiration and rivalry, and mental health variables. Despite its brevity, the Naughty Nine appears to be a reliable and useful measure of the Dark Triad of Personality.

### Reducing the overlap between Machiavellianism and psychopathy: The Mach7 and Psycho7 scales

Grosz, Michael<sup>1</sup>; Harms, Peter D.<sup>2</sup>; Dufner, Michael<sup>3</sup>; Wetzel, Eunike<sup>4</sup>

Machiavellianism (Mach) and psychopathy are two dark personality traits with distinct theoretical conceptualizations. Mach is conceptualized by strategic deviousness, cynicism, and pragmatic morality whereas psychopathy is conceptualized by impulsivity, callousness, and rule-breaking. However, existing measures of the two traits are typically highly correlated and show a very similar nomological network, which suggests that established measures are not distinguishing between them in a meaningful way. The current study aimed at creating a new Mach and a new psychopathy scale that show less overlap with each other than established Mach and psychopathy scales do. We searched among existing Mach and psychopathy items for items that are more in line with their distinct theoretical conceptualizations: Each Mach and psychopathy item was individually correlated with impulsiveness and conscientiousness. Items with relatively more adequate correlations were then used to build two unidimensional scales, the Mach7 and Psycho7. The Mach7 and Psycho7 showed good psychometric properties (convergent and discriminant validity, closeness to unidimensionality, measurement precision, temporal stability) in data from five samples (N1 = 1,240; N2 = 910; N3 = 1,743; N4 = 460; N5 = 250). Most importantly, the two new scales assess clearly distinct latent traits that are more in line with their theoretical conceptualizations than the traits assessed by existing Mach and psychopathy scales.

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<sup>&</sup>lt;sup>1</sup> University of Münster, <sup>2</sup> University of Alabama, <sup>3</sup> University of Leipzig, <sup>4</sup> University of Vienna

### Validation of the Narcissistic Admiration and Rivalry Questionnaire Short Scale (NARQ-S) in a Criminal Offender Sample

Jallalvand, Lina; Mota, Simon; Niemeyer, Lisa M.; Back, Mitja D.

University of Münster

Research on the role of narcissism in imprisoned offenders is still limited and lacks economic and psychometrically validated assessment tools. The present study aimed to validate the Narcissistic Admiration and Rivalry Questionnaire short scale (NARQ-S) that allows to differentiate between agentic (admiration) and antagonistic (rivalry) aspects of grandiose narcissism. Based on a sample of 205 male prisoners, we analyzed the psychometric properties (i.e., factor structure, reliability) and nomological network (Big Five, Dark Triad, self-esteem, PID-5 domains) of the NARQ-S. In addition, we investigated whether the NARQ-S can be used to predict criminal offenses, antagonistic behavior, and hierarchy status during detention. Preregistered hypotheses (see osf.io/73d9q/) were analyzed from the prisoner's as well as acquaintance's (psychologist or penal service officer) point of view. Results confirm the two-dimensional structure, satisfactory reliability, moderate self-other agreement, and differentiated nomological network for the NARQ-S. Also, both admiration and rivalry showed connections to prisoner's criminal career and adjustment during detention. The study points to the validity and utility of the NARQ-S in the context of imprisonment. A closer examination of grandiose narcissism including the differentiation between agentic and antagonistic aspects as well as self- and informant perspectives can help to improve our understanding of delinquency and behavior in detention.

### The Content-specific Narcissistic Admiration and Rivalry Questionnaire (NARQ-C): Construction, psychometric properties, and initial validation

**Hartmann, Isabel**<sup>1</sup>; Leckelt, Marius<sup>2</sup>; Küfner, Albrecht C. P.<sup>1</sup>; Dufner, Michael<sup>3</sup>; Gerlach, Tanja M.<sup>4</sup>; Rauthmann, John F.<sup>5</sup>; Denissen, Jaap J. A.<sup>6</sup>; Back, Mitja D.<sup>1</sup>

<sup>1</sup> University of Münster, <sup>2</sup> University of Mainz, <sup>3</sup> University of Leipzig, <sup>4</sup> University of Göttingen, <sup>5</sup> University of Lübeck, <sup>6</sup> Tilburg University

Recent conceptual and empirical research contributed to a better understanding of narcissism's general structure and dynamics. Only little is, however, known about narcissism with regard to specific content domains. Following the Narcissistic Admiration and Rivalry Concept (Back et al. 2013), we sought to validate a two-dimensional narcissism model that distinguishes between agentic (admiration) and antagonistic (rivalry) process pathways, in each of the following contents: intellectual ability, physical attractiveness, social dominance, and communal care. In addition we tested a bi-factor model simultaneously representing process and content factors. Data was drawn from a large online-sample (n = 1,682) that included content-specific NARQ items as well as responses to other narcissism and personality measures. Confirmatory factor analyses revealed adequate model fits for intellectual-ability-, physical-attractiveness-, and social-dominance-specific narcissism forms, and for a bi-factor model embedding these. Model fits were lower in the communal care domain, potentially due to the lower plausibility of using antagonistic strategies in communal contexts. Nomological network associations with other personality measures differed in meaningful ways between content domains. Results highlight the utility of a process- and content-sensitive conceptualization and assessment of narcissism.

#### Paper Session 3: Psychophysiology and brain functioning

TIME 09:00 – 10:30

LOCATION Workshop-Room 4b (WS4b)

CHAIR Anja Leue, Christian-Albrechts-University of Kiel

### Diffusion Markers of Dendritic Density in the Lateral Amygdala Nucleus Reveal Interindividual Differences in Neuroticism

Schlüter, Caroline; Fraenz, Christoph; Friedrich, Patrick; Güntütkün, Onur; Genc, Erthan

Ruhr-Universität Bochum

Neuroticism is known to have significant health implications. While previous research revealed that interindividual differences in the amygdala function are associated with interindividual differences in Neuroticism, the impact of the amygdala's structure and especially microstructure remains unclear. Here, we present the first study using NODDI to examine the association between the in vivo microstructural architecture of the amygdala and Neuroticism in a large sample of 211 healthy adults. Since the amygdala comprises several nuclei, we used a high-resolution T1 image to automatically segment the amygdala into eight different nuclei. Neuroticism and its facets have been assessed by the NEO-PI-R. Finally, we associated Neuroticism and its facets with the macro- and microstructure of the amygdala nuclei. Statistical analyses revealed that solely the dendritic density in the lateral amygdala nucleus was associated with the individual's shaping in Depression, one of the six Neuroticism facets.

### The association between polygenic scores for educational attainment and intelligence is mediated by fiber network efficiency

**Genc, Erhan**; Ocklenburg, Sebastian; Fraenz, Christoph; Schlüter, Caroline; Voelkle, Manuel; Güntürkün, Onur; Kumsta, Robert

Ruhr-Universität Bochum

Individual differences in cognitive abilities are influenced by genetic variability. An innovative way to assess the cumulative effect of genetic variation on traits is to use polygenic scores (PGS). Although, PGS for educational attainment reliably predict interindividual differences in intelligence, the intermediate steps from genes to cognitive abilities are largely unknown. Given the association between the brain's macrostructure and its structural network properties with intelligence, we tested whether the association between PGS and intelligence is mediated via brain volume and fiber network connectivity. In a sample of 300 healthy individuals intelligence was measured with a broad cognitive test battery. Polygenic scores for educational attainment were derived using data from the latest genome-wide association study on adult educational attainment. Furthermore, we used standard MRI along with DTI and fiber tractography to examine estimates of brain volume as well as brain fiber network connectivity by means of graph theory. Consistent with previous findings, PGS significantly predicted cognitive performance (R2=.062). Furthermore, participants with larger brains and more efficient fiber connectivity achieved higher IQ scores. Mediation analyses showed that the association between polygenic scores and intelligence was only mediated by fiber network efficiency, both measured for the whole brain and for single brain regions predominantly located in areas of the P-FIT model of intelligence. The results of our study demonstrate that the pathway from genes to cognitive performance involves the shaping of fiber network efficiency, thus representing a crucial step in the endeavor of identifying the missing link between genetic variability and cognitive performance.

### Impact of FAAH genetic variation on fronto-amygdala function and anxiety: A replication study

**Gärtner, Anne**<sup>1</sup>; Dörfel, Denise<sup>1</sup>; Diers, Kerstin<sup>1</sup>; Witt, Staphanie H.; Strobel, Alexander<sup>1</sup>; Brocke, Burkhardt<sup>1</sup>

<sup>1</sup>Technische Universität Dresden

FAAH C385A is a polymorphism in the gene for the enzyme FAAH (Fatty Acid Amide Hydrolase), which metabolizes the endocannabinoid anandamide (AEA). Anandamide play an important role in the fronto-limbic system and are involved in the regulation of mood and anxiety. The A-allele of the polymorphism has been repeatedly associated with decreased FAAH expression and functionality. Recent translational animal and human studies have shown that the A-allele is associated with decreased anxiety, presumably mediated by increased functional and structural connectivity between prefrontal areas and amygdala (e.g. Dincheva et al., 2014). However, it is still unclear whether this finding extends to functional activity and connectivity between fronto-limbic areas during emotional processing. The present study therefore aimed at replicating and extending the results of Dincheva et al. (2014). For this purpose, 48 healthy young adults underwent a functional MRI resting state measurement, completed a typical emotion regulation task and provided selfreports on anxiety and use of emotion regulation strategies. In accordance with earlier findings, Aallele carriers showed stronger connectivity in the fronto-limbic system. Furthermore, exploratory whole brain analyses indicated differences in functional activity of A-allele carriers during emotional processing. There were no associations with self-reported anxiety and use of emotion regulation strategies. In the light of recent controversies regarding the replicability of candidate gene association studies, the findings are currently investigated in a larger sample regarding their replicability. The results will be presented and discussed.

## Pupillometric measures as additional sources of information in performance testing Fehringer, Benedict C. O. F.

Universität Mannheim

Accuracy and reaction times are the standard measures in psychological tests. Beyond these measures, pupillometric measures might provide additional information, such as about cognitive workload during solving test items. The Index of Cognitive Activity (ICA, Marshall, 2002) is a patented pupillary-based indicator for cognitive workload. In two studies, the ICA was investigated with respect to its potential for the measurement of spatial thinking ability. A self-developed spatial thinking test, the R-Cube-Vis test, was utilized. This test consists of six distinct difficulty levels. Each item shows a solved Rubik's cube and a twisted one. The task is to decide whether both cubes are the same except for single rotated elements. The goal of the first study (N=53) was to examine four different ICAmeasures regarding their potential to indicate cognitive workload and fatigue using Bayesian statistics. The two most promising ICA-measures were analyzed in a second study (N=141) within a multi-level-model. Changes during testing as well as differences between participants with lower and higher abilities were investigated. As expected, fatigue increased and cognitive workload decreased during the testing within some difficulty levels. Significant positive correlations were found between the participants' ability and the cognitive workload in the two most difficult levels suggesting that participants with lower ability might have tended to give up, which resulted in a lower cognitive workload. This was supported by higher reaction times of the participants with a higher ability. It is concluded that pupillometric measures can provide valuable additional sources of information in psychological testing.

### How reliable is the extended Concealed Information Test?: Preliminary evidence for the early and late P3 components

Leue, Anja; Kleene, Valentina; Dreismann, Valentin

Christian-Albrechts-Universität Kiel

Recognition of stimulus salience as indicated by the parietal P3-component of the event-related potential (ERP) is a well-known cognitive process occurring during deception. One of the most frequently applied experimental deception tasks is the (extended) concealed information test (CIT). 3-stimulus CITs comprise probe (i.e., known stimuli requiring deceptive responses), target (i.e., known stimuli requiring truthful responses), and irrelevant stimuli (i.e., unknown information requiring truthful responses). Extended CITs incorporate misinformation instead of target information. When participants recognize misinformation (i.e., verbal or figural stimuli that were changed compared to the original information) they are asked to indicate truthfully that information has changed. As prior research -also in two P3 meta-analyses- focused mainly on the validation of cognitive processing during deception, we aimed at elucidating internal consistency coefficients of the early and late parietal P3-components in an extended CIT. In a sample of N = 56 participants (age: 19-33 years) we investigated variations of Cronbach's alpha coefficients with increasing numbers of artefact-free P3epochs for probe, misinformation, and irrelevant information and depending on stimulus material (verbal vs. figural). By performing a random mode for the selection of artefact-free P3-epochs per stimulus type and condition, we observed an increase from moderate to high Cronbach's alpha coefficients especially for 15 to 25 artefact-free P3a-epochs. Our data suggest comparable Cronbach's alpha coefficients for the extended figural CIT (based on faces) and for the extended verbal CIT (based on three-word phrases). We discuss the reliability findings on the P3 components in light of a bestpractice development for CITs.

### **State of the Art Session: Personality Neuroscience**

TIME 11:00 – 12:30

LOCATION Main Hall (MH)

CHAIRS Jan Wacker, Universität Hamburg

Erik Mueller, Universität Marburg

Emanuel Jauk, Technische Universität Dresden

Mathias Benedek, Universität Graz

Alan Pickering, University of London Goldsmiths

Since H.-J. Eysenck (1967) started modern personality neuroscience over 50 years ago with his seminal work on "The Biological Basis of Personality" several theories have been proposed with the aim of providing causal biological explanations for each of the major personality traits. Building on technological developments and increased insights into neurobiological mechanisms, these theories became increasingly neuroscience-based, guiding research into personality correlates in both brain structure and functioning. Although this line of work has generated an impressive array of findings, it has certainly not been immune to the replicability problems in psychology and cognitive neuroscience on which recent reports cast alarming light. In this session, we will first summarize the most salient current knowns and unknowns concerning the causal neurobiological basis of each of the Big Five domains (Benedek for Openness, Jauk for Agreeableness, Mueller-Reh for Neuroticism, Wacker for Extraversion, and Pickering for Impulsivity/Conscientiousness). Afterwards, the session will conclude with consensual suggestions concerning promising strategies to overcome current replicability challenges by engaging in novel, more collaborative approaches to research.

#### **How to Assess and Predict Academic Performance at University**

TIME 11:00 – 12:30

LOCATION Workshop-Room 1 (WS1)

CHAIRS Johannes Schult, Institut für Bildungsanalysen Baden-Würtemberg

Stephan Josef Stegt, ITB Consulting GmbH

Assessing academic performance and identifying its various antecedents is important not just for universities dealing with student admission procedures. The predictive validity of measures of cognitive abilities and competencies is also an ongoing research topic. The present session therefore addresses questions such as: Does it matter what kind of admission test is used? Which constructs does the potential to succeed at university encompass? And what can be done about the subjectivity associated with college grades? First, Weimar et al. deal with master student selection in economics, comparing the properties of different bachelor degrees and different admission tests across a heterogeneous applicant pool. Schult et al. then broaden the scope with a meta-analytical perspective of the predictive validity of admission tests in Germanspeaking countries. In addition to a positive main effect, the meta-analysis identifies moderators that are relevant for practitioners and researchers alike. Sparfeldt et al. take a closer look at how university students acquire competencies at university and how the development of competencies relates to predictors such as high school grade point average (GPA). Stadler highlights the predictive validity of complex problem-solving (CPS) performance by applying an innovative CPS-modelling approach to university student data. The session ends with a look at the meaning and the comparability of grades as outcomes in validity studies. It seems an undisputed fact that grading at university differs between teachers, courses, fields, and institutions. Bergerhoff et al. show that systematically correcting for such differences can increase the value of grades as indicators of academic achievement.

### Selection Effects of Performance Tests in the German Higher Education System: Empirical Evidence from Internal and External Performance Tests

Weimar, Daniel<sup>1</sup>; Borowski, Stefan<sup>1</sup>; Stegt, Stephan Josef<sup>2</sup>; Bergholz, Luisa<sup>2</sup>; Prinz, Joachim<sup>1</sup>

Recently, the demand for a fair, reliable, valid, and legal admission process has increased even more as the selection process for students of human medicine has in part been declared as unconstitutional by the Federal Constitutional Court because of its discrimination of some applicants. Performance tests are discussed as potential alternatives or additionally applied instruments because of the diminishing predictive validity of the traditional selection criteria. Two different kinds of tests can be used: internal and external tests. In the existing literature a comparison of the selection effects of the different test types is lacking. Therefore, the present article wants to fill the existing research gap by answering the question, which selection effects arise by using internal or external tests compared to a selection that is entirely based on undergraduate grade point averages (GPAs). In order to answer the research question, results of an internal (n = 1,000) and an external (n = 4,960) test are being analysed. Results confirm differences between graduates of different higher education types. Graduates from universities of applied sciences and vocational colleges show to have significant lower test scores than graduates from universities but instead they show better undergraduate grades. Moreover it is shown that the test score declines with an increasing age of the participants. We discuss correlations between high school and undergraduate grades and the scores in internal and external tests.

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#### A Meta-Analysis of the Predictive Validity of Subject-Specific College Admission Tests

Schult, Johannes<sup>1</sup>; Hofmann, Arvid<sup>2</sup>; Stegt, Stephan Josef<sup>2</sup>

College admission tests aim to predict students' future academic performance by assessing relevant cognitive abilities and competencies. Such tests are frequently used for student selection purposes in Germany, Austria, and Switzerland. Still, test contents, test takers, legal aspects and the educational system are not static, making test development and use an ongoing challenge. A first meta-analysis by Hell et al. (2007) found a substantial predictive validity for subject-specific tests in Germanspeaking countries with the highest validities for the field of human medicine. The present study aims to replicate and extend these previous findings using newer publications from 2005 to 2018 (K = 54 independent samples, N = 8,410 persons). The new meta-analysis finds a correlation of  $\rho$  = .43 (corrected for range restriction and for criterion reliability) between test scores and subsequent academic grades, confirming the predictive power of subject-specific college admission tests. Previous findings are replicated and extended to other fields. Good predictive validities are found in the fields of linguistics, law, social sciences, medical studies, engineering, natural sciences, economics, and information sciences. Moderator analyses show that higher validities were associated with newer studies, articles with peer-review, university student samples, and a shorter time span between the test and the assessment of college grades. Compared to international studies, the tools used at German-speaking universities appear to have a similar or even higher predictive validity.

#### **Acquisition of Academic Competencies while Attending a University Lecture**

Sparfeldt, Jörn R. 1; Lotz, Christin1; Keimerl, Verena1; Leutner, Detlev2

It is generally assumed that university students acquire academic competencies while attending a university study program as well as specific courses as relevant learning opportunities. Therefore, this quasi-experimental study examined achievement gains of teacher education students. We compared students attending a lecture on "educational assessment/diagnostics" (n = 144, experimental group) with different students attending another lecture (n = 66, comparison group). At the beginning of the semester the students of the comparison group that were more advanced in their studies achieved better results in a standardized test on "educational assessment" than those of the experimental group (d = 0.80). At the end of the semester the results of both groups did not differ any longer (d = 0.02), corresponding to a significant performance gain in the experimental group (d = 0.92, comparison group: d = 0.19). The test results of the experimental group at the end of the semester correlated substantially with the grade in the final exam of the lecture (r = .31). Furthermore, achievement gains in the experimental group correlated significantly with their high school GPA. The implications of the results for test-based evaluations of academic teaching will be discussed.

### Incremental Validity of Different Dimensions of Complex Problem-Solving over Intelligence in the Prediction of University Success

#### **Stadler Matthias**

Ludwig-Maximilians-Universität

Succeeding at university requires managing multiple aspects of academic life at the same time. Correspondingly, several studies have shown complex problem-solving (CPS) to have incremental validity over and above conventional measures of intelligence in the prediction of academic performance. CPS describes the ability to deal with problems consisting of multiple interrelated variables that change as a function of interactions with the problem and/or over time. While CPS has

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mostly been measured on a single dimension, a recent publication indicated that CPS is actually a multidimensional construct consisting of the ability to detect and handle connectivity in a system and the ability to detect and handle dynamics (i.e. changes in the system over time). The connectivity dimension of CPS seems to be closely related to performance in conventional measures of intelligence whereas the dynamics dimension seems to be more independent. Reanalyzing an existing dataset of N = 163 university students, this study investigates whether the incremental validity of CPS over and above conventional measures of intelligence in explaining university success is mostly due to the dynamics dimension. In addition to providing their GPA, students worked on 10 problems based on the MicroDYN approach and the screening version of the Intelligence Structure Test (IST). The results replicated previous findings in that the connectivity dimension of CPS was mostly redundant to conventional measures of intelligence (r = .73, p < .001) whereas the dynamics dimension was independent (r = .18, p = .415). Together, CPS and the IST explained 58.9% of the variance in students' GPA with dynamics contributing 25.2%, connectivity 24.7% and the IST 9.0% of this prediction based on a relative weights analysis.

#### Statistical Corrections Allow to Increase the Explanatory Power of Grade Point Averages

Seegers, Philipp K. 1; Bergerhoff, Jan N. 1; Bergholz, Luisa2; Stegt, Stephan Josel2

Different grading standards as well as varying competitiveness lead to low comparability between higher education grades. As a result, absolute GPAs are of limited use when admitting Bachelor graduates to Master programs and an increasing number of higher education institutions relies on admission tests to select fitting applicants. This study analyses to which degree a statistical correction based on relevant context information can improve the explanatory power of GPAs achieved during Bachelor studies. The analysis is based on a unique sample of 4,844 completed TM-WISO admission tests. This sample has been enriched with CASE Scores based on the higher education institution at which the Bachelor degree was obtained, the subject studied, the year of graduation and the final GPA. The CASE Score statistically corrects those GPAs by using (1) program-specific information on grading standards and (2) IQ and personality scores of students in those study-programs. In the first step absolute GPAs are adjusted based on the grade distribution to calculate a grade percentile within the respective study program. In the second step study programs are ranked according to the cognitive performance and personality of their students. For this statistical correction data on more than 300,000 grade distributions and on more than 290,000 German students is used. The results show that a statistical correction can significantly increase the explanatory power of GPAs. The correlation between TM-WISO test scores and Bachelor grades increases from r = -0.27 to r = -0.42 when GPAs are corrected by the CASE Score. When adjusting only for the respective grading standards but not for differences in competitiveness the correlation increases slightly from r = -0.27 to r = -0.31.

### **Personality and Romantic Outcomes**

TIME 11:00 – 12:30

LOCATION Workshop-Room 2 (WS2)

CHAIRS Tanja M. Gerlach, University of Göttingen

Lars Penke, University of Göttingen

Drawing on a methodologically diverse set of studies, the current symposium focuses on the role of personality for romantic outcomes, ranging from romantic attraction to relationship dissolution. Julie C. Driebe reports on a number of laboratory studies in which she zeroes in on the role of intelligence, a trait hypothesized to indicate good genes as well as the ability to provide resources, for romantic attraction. In a person perception study, Julia Stern focuses on trustworthiness, including cheating behavior in romantic

<sup>&</sup>lt;sup>1</sup> Maastrich University, <sup>2</sup> ITB Consulting GmbH

relationships, and examines associations of actual and perceived trustworthiness across domains with male voice pitch. Drawing on data from a prospective longitudinal study on relationship development, Tanja M. Gerlach reports on the role of preference-partner discrepancies for relationship stability and relationship quality. Finally, Larissa L. Wieczorek presents a newly developed online event history calendar for the reconstruction of people's relational past and findings of a study investigating attributes of romantic partners with the help of this tool. Together, the talks shed new light on the role of personality for romantic outcomes and illustrate novel methodological approaches that can be used to advance their study.

#### **Attractiveness of Intelligence**

Driebe, Julie C.1; Arslan, Ruben C.; Von der Heiden, Juliane2; Penke, Lars1

<sup>1</sup> University of Göttingen, <sup>2</sup>University of Mainz

Is intelligence attractive and what role does it play in mate choice? Previous studies suggest that more intelligent individuals are preferred as a partner. Evolutionary psychological theory holds that intelligence could be seen an indicator of good genes and signal one's ability to provide resources. We investigated this potential link in 5 rating studies. Pictures and videos of 88 men were used as stimuli. In Study 1, men and female rate targets' intelligence. We found a positive relationship between actual and perceived target intelligence (r = .32). Study 2 examined whether more attractive men are perceived as more attractive partners. Only perceived but not actual intelligence predicted men's attractiveness as potential partners. In Study 3 - 5, we investigate whether attractiveness ratings increase when gradually giving women more information to infer the target's intelligence. In Study 3, contrary to our hypothesis, the attractiveness of more intelligent men decreased as soon as stimuli which allow intelligence perception were added. In the two follow-up studies, the pattern was more in line with our hypothesis again, but in all studies the influence of actual intelligence on attractiveness ratings was small compared to the influence of physical attractiveness on attractiveness ratings. We conclude that a target's actual intelligence can be perceived but exerts only a small influence on attractiveness ratings, rendering the fitness indicator idea doubtful.

#### Men's Actual and Perceived Trustworthiness Across Domains: What can Voice Pitch Tell us?

Stern, Julia<sup>1</sup>; Schild, Christoph<sup>2</sup>; Zettler, Ingo<sup>2</sup>

<sup>1</sup> University of Göttingen, <sup>2</sup>University of Copenhagen

A person's trustworthiness and how it is perceived by others are important predictors of social outcomes, such as cooperation. Trustworthiness has been shown to be especially important when it comes to romantic relationships, in being the trait that people desire strongest in potential and actual partners. Previous research suggests that judgments about a men's trustworthiness vary due to the speaker's voice pitch (F0) and differ across domains (e.g. romantic relationships vs. economic contexts), but mixed results in terms of the direction and magnitude of reported effects. Moreover, no study so far has investigated whether men's F0 is, indeed, a valid cue to their actual trustworthiness, or if trustworthiness judgments are accurate. We tested the relation between F0 and actual general, economic and mating-related trustworthiness, as well as trustworthiness judgments of perceivers across all three domains. Analyses show that men's F0 is not related to actual general or economic trustworthiness. In contrast, F0 might be related to mating-related trustworthiness as indicated by relationship infidelity. Lower F0 was judged as more trustworthy in economic, but less in mating-related domains and unrelated to judgments of general trustworthiness. Trustworthiness judgments were not accurate for general or economic trustworthiness, but exploratory analyses suggest that women might be able to accurately judge men's relationship infidelity based on their voice pitch.

### Do Partner-Preference Discrepancies Prospectively Predict the Stability and Quality of Newly Formed Relationships? Evidence From a Longitudinal Study on Relationship Development

Gerlach, Tanja M.¹; Schultze, Thomas¹; Arslan, Ruben C.; Penke, Lars¹

Whether people's ideas on the traits and attributes a romantic partner should ideally have - i.e., people's ideal partner preferences - may be predictive of relationship outcomes or not is a topic controversially debated in contemporary relationship science. In previous research employing a longitudinal approach, we found partner preferences of singles (measured at T1) to predict characteristics of their partners five month later (T2). However, fit between initial preferences and partner characteristics was far from perfect, indicating substantial preference-partner discrepancies. Here, we investigate the consequences of these discrepancies on the stability and quality of newly formed relationships. We followed up on our sample 16 months after initial participation (T3) to track the development of these relationships and investigated the associations of several discrepancy indicators with core relationship outcomes. Based on over 250 newly formed relationships, we found larger preference-partner discrepancies linked to a higher probability of break-ups by T3. Among those still with the same partner as in T2, larger preference-partner discrepancies were associated with reduced relationship satisfaction and commitment by T3. Results and implications are discussed against the background of ongoing controversies in mate choice and relationship research

### Digging Deeper Into People's Relational Past: Investigating Attributes of Romantic Partners and Relationships With an Online Event History Calendar

Wieczorek, Larissa L.; Penke, Lars; Gerlach, Tanja M.

University of Göttingen

Recent studies suggest that human partner choice is partly driven by individual partner preferences. However, it is less clear if different partners and relationships of one person resemble each other with regard to specific characteristics as a result. That is, does partner choice show a certain degree of consistency? In this investigation, a newly developed online event history calendar (EHC) was used to reconstruct the relational past of the participants. Originally conceptualized as face-to-face interviews, EHCs contain various questions about the respondents' autobiography in order to use their experiences as cues to facilitate remembering. Supported by the online EHC, partner attributes and power distributions in current and past long-term relationships were retrospectively obtained in 497 young heterosexual adults and compared to their preferences. On average, preferences were positively related to the corresponding attributes of the participants' current and former partners and relationships. At the same time, the retrospective self-reports did not indicate any consistency of attributes across partners and ex-partners or of power-distribution across relationships and exrelationships. The concordance between preferences and partner characteristics was higher for more recent relationships and positively related to relationship satisfaction. Findings are discussed in light of advantages and limitations of online EHCs and future directions are pointed out.

### **Challenges in and Approaches to Behavioral Assessment & Prediction**

TIME 11:00 – 12:30

LOCATION Workshop-Room 3 (WS3)

CHAIR Le Vy Phan, Universität Lübeck

Overall Abstract: In recent years, there have been repeated calls for the direct study and assessment of behavior in personality science. Furthermore, the emergence of new technologies has enabled Fat and Big Data collection (e.g., using machine sensing) and new data analytic approaches (e.g., machine learning).

<sup>&</sup>lt;sup>1</sup> University of Göttingen

These developments may change our view on how we can capture and predict human behavior. Thus, this symposium features talks that exemplify the breadth of research on behavioral assessment and prediction in personality science as well as the challenges that come along. First, Phan presents a conceptual cascade model of behavioral variance sources and its implications for the measurement of behavior. Second, Stachl provides an overview of the assessment of personality traits levels from digital traces as well as an outlook on how big data methodologies can be used for psychological diagnostics. Third, Horstmann reports meta-analytical findings on how personality states/behaviors are linked to personality traits and empirical evidence from a pre-registered study showing that personality states can be predicted by personality traits, momentary affect, and situation perception. Fourth, Schödel presents a laboratory smartphone study in which machine learning methods were used to predict Big Five scores from micro-level behaviors. She further discusses challenges related to collecting and pre-processing technology-based behavioral data. Lastly, Peikert demonstrates how machine learning methods can be applied to test hypotheses about person-situation relations in the face of a multitude of data and how these methods can be used to identify behaviors that are indicative for person-environment fit.

#### A Cascade Model of Behavioral Variance

Phan, Le Vy<sup>1</sup>; Furr, Michael R.<sup>2</sup>

<sup>1</sup>University of Lübeck, <sup>2</sup> Wake Forest University

The explanation and prediction of behavior is seen as one of the most central objectives of research in psychology. However, the measurement of behavior still poses a fundamental problem in psychology. We present a conceptual cascade model of which data sources contain behavioral variance. Consistent with interactionist views, we see behavior as a product of personality and the situation. Building upon Gosling's model of behavioral residues (2002), we note that behavior can result in behavioral products such as behavioral traces or digital footprints. Both actual behavior and behavioral products can be made tangible through (a) signals detected by machine sensors such as video recordings and (b) (human) ratings of behavior or of behavioral products such as ratings resulting from direct behavioral observations. Each of the four tangible model components (1) ratings of actual behavior, (2) machine-sensed behavior, (3) ratings of behavioral products, and (4) machinesensed behavioral products contains variance from all its preceding components, including actual behavior, as well as unique variance. The behavioral components of the model represent data sources that can be used to assess actual behavior and that differ in their proximity to actual behavior as well as the amount of systematic non-behavioral variance they contain. Considering the model presented above, we (a) identify existing behavioral measures that can be categorized within the model, and (b) review the strengths and weaknesses of those measures.

#### **Machine Learning for Personality Assessment**

Stachl, Clemens; Bühner, Markus

Ludwig Maximilian University of Munich

The increasing digitization of our society has facilitated the collection of digital data traces about our behaviors, our appearance, our preferences, our whereabouts and more. Given that researchers in psychology have aimed to quantify inter-individual variations in such dimensions for decades, it is not unreasonable to assume that these digital traces contain valuable information about individual differences. Supported by methodological advances in the field of machine learning, more and more research efforts are directed towards the assessment of personality traits levels from digital traces. In this presentation we will first introduce thematic approaches to this topic (e.g., smartphone usage, likes, music). Second, we will critically discuss the potential and limitations of these approaches and provide an outlook on how big data methodologies will possibly be used for psychological diagnostics in the future. Finally, we will hypothesize how psychological assessment will likely change due to the imminent shift to the big data paradigm.

#### The Relation of Personality States and Traits

Horstmann, Kai T.<sup>1</sup>; Rauthmann, John F.<sup>2</sup>; Ziegler, Matthias<sup>1</sup>

<sup>1</sup> Humboldt-University of Berlin, <sup>2</sup> University of Luebeck

Recent experience sampling studies examined how self-reported personality traits are related to self-reported personality states (or behavior) in daily life. To further investigate this relation, we meta-analytically (k = 15, N = 1,937 with about 80,000 measurement occasions) explored how average self-reported personality states are linked to personality traits, and which methodological considerations in study design influence the trait-state-correlation. Preliminary results indicate that the number of state items and the instructions influence the trait-state-relation, but not the content domain examined. We then present empirical evidence from a pre-registered study (N = 210, N = 273) showing that personality states can not only be explained with personality traits, but also with situation perception and momentary affect. We discuss the insights gained into the nature of personality states and possible processes that connect personality traits and states, as well as recommendations for the development of state items for the assessment of behavior in daily life.

### Using Gaze and Finger Placement during Smartphone Usage for Personality Prediction: Challenges & Outlook

**Schödel, Ramona**<sup>1</sup>; Buschek, Daniel<sup>1</sup>; Pfeuffer, Ken<sup>2</sup>; Bühner, Markus<sup>1</sup> Ludwig Maximilian University of Munich, <sup>2</sup> Bundeswehr University Munich

Does the way we look at the world tell anything about us? The emergence of new technologies enables access to corresponding behavioral markers. Accordingly, gazing assessed via eye tracking has been found to be related to personality traits in previous literature. Based on first indications of individual differences in how people interact via gaze and touch on mobile devices, we combined these micro-level behaviors and examined eye movements and touch behavior during three everyday smartphone tasks (instant messaging, information seeking via google maps, scrolling through an Instagram-like image gallery) in a laboratory setting (N = 130). In our talk, we will address challenges related to collecting and preprocessing technology-based behavioral data before being usable for modeling. Besides focusing on the importance of variable extraction (e.g., touch and gaze locations, touch pressure, typing speed and accuracy, saccades, blinks, fixations), we will present first results of our machine learning model predicting self-reported Big Five personality traits. Finally, we will critically discuss the limitations of our exploratory study and the potential of assessing microlevel behaviors for personality prediction.

### Combining Prediction and Explanation: Machine-Learning for Person-Environment Fit Peikert, Aaron; Ziegler, Matthias; Horstmann, Kai T.

Humboldt-University of Berlin

Building on trait-activation theory (TAT; Tett and Burnett, 2003), we aim to explore specific relations between personality traits and situational demands in an occupational context on a behavioral level. Previous research has struggled to define specific mechanisms that account for person-environment fit (PEF) for two reasons: First, previous studies often focused on the Big Five or HEXACO domains (de Vries, Tybur, Pollet, & van Vugt, 2016). However, this high level of abstraction makes it difficult to look at more fine-grained processes. Second, lower levels of abstractions quickly produce an overwhelming number of variables. Moreover, none of the previous research examined behaviors that might play a role in PEF. In this study, we present a methodological approach that (a) helps to test hypotheses about person-situation relations in the face of a multitude of data and (b) offers the potential to delineate specific hypotheses about the actual underlying mechanisms. The approach utilized machine-learning techniques and combines hypotheses testing with hypotheses generating algorithms. Instead of testing a multitude of hypotheses that directly relate to the data, we formulate a hypothesis about a predictive model, which relates to its predictive power. In this first step, we tried to predict supervisor ratings as a dependent variable and Big Five facets as predictors. In the second step, we included the job domain as predictor and examined the effect on the predictive power of the model via a Bayesian random effect model (Benavoli, Corani, Demšar, & Zaffalon, 2017).

# Political Psychology - On the interplay of individual differences, politics, and society

TIME 11:00 – 12:30

LOCATION Workshop-Room 4a (WS4a)

CHAIR Anke Hufer, Bielefeld University

Individual differences in socio-political and personality-related aspects and societal circumstances are complexly intertwined. In this symposium, we provide new evidence on several of the most prominent aspects of this interplay in the context of Germany: Political orientation, political trust, and political participation. Political trust has shown to be a prerequisite of political participation, and both are paramount for a functioning democracy and part of a multidimensional etiological framework. The latter is also true for political orientation, which is strongly related to voter decisions in a democracy. In the first contribution, Laurits Bromme uses Latent-State-Trait analysis methods to demonstrate the long-term stability of generalized political trust in a longitudinal study. Related, Alexandra Zapko-Willmes focuses on the association of political and civil participation and socio-economic status from a behavior genetic perspective. Myriam A. Baum then analyzes the relationship of shift work, health behavior, personality, and socio-economic status and focuses on implications for labor law. Anke Hufer uses twin family data to investigate the genetic and environmental sources of political orientation. Lastly, Thomas Grünhage applies the Moral Foundations Theory on liberal and conservative political orientations and the associated lifestyle tendencies "vegetarianism" and "religiousness".

### How Stable Is Generalized Political Trust? A Latent-State-Trait Analysis

**Bromme, Laurits**<sup>1</sup>; Rothmund, Tobias<sup>2</sup>

<sup>1</sup>University of Koblenz-Landau, <sup>2</sup> Friedrich Schiller University

Generalized political trust is important for the functioning of representative democracies. It is often regarded as a stable individual characteristic, for example, as a predictor of political participation. At the same time, there is evidence that it can be reduced by situational factors (e.g. political scandals) and that mean-levels are declining in most Western societies. While these findings raise the question of stability of political trust, empirical studies on the individual level are scarce. One exception, a recent study by Baumert et al. (2017), provides evidence for the stability of political trust—when aggregated across situations—for a short period of two weeks. In the present study, we investigate the stability versus variability of political trust in a period of three years by applying Latent-State-Trait (LST) analysis. LST theory (Steyer et al., 1999) postulates that the state of a latent psychological variable consists of a stable trait component and a situational component, which can be separated using structural equation modelling of longitudinal data. Analyzing four waves of GESIS Panel data (N = 2,660), we find that indicators of political trust have a large share of trait-variance (consistency coefficients  $\approx$  .60), and relatively less situational variance (specificity coefficients  $\approx$  .30). We interpret these results as evidence that political trust is a relatively stable trait, and we discuss the implications for research in personality and politics.

# Deconstructing the association between socio-economic indices and political and civil participation in adolescents and young adults: A twin family study Zapko-Willmes, Alexandra

University of Bremen

Political and civil participation have been reliably found to be associated with socio-economic status and related variables, most strongly with educational attainment and cognitive ability. Researchers have often merged heterogeneous forms of political and civil behaviors into composite scores. In this study, we investigate the association between different forms of political and civil participation and different forms of socio-economic resources in order to gain a more fine-grained insight. Following Ekman and Amnå's typology, we differentiate between formal political participation, activism, social

involvement, and civic engagement. As socio-economic indices, we consider educational attainment, cognitive ability, subjectively perceived intelligence, occupational status, security of employment, and net equivalent household income. We look at genetic and environmental contributions to these associations and test for moderating effects of personality and social variables (e.g., trust, inclusion, friends' educational attainment). We analyze cross-sectional data on two cohorts, aged 17 and 23, from TwinLife, a German twin family study aimed at shedding light on the development of social inequality. Implications of the findings and of such differentiated approaches for political psychology in general will be discussed.

# Shift work and health behavior – potential moderating effects of cognitive abilities and personality characteristics on the link between shift work and health behavior and implications for labor law decisions

Baum, Myriam A.; Hahn, Elisabeth; Spinath, Frank M.

Saarland University

Much of the research on working conditions focuses on shift work. Previous work – mostly from the US and Scandinavia – suggests a link between shift work and several health outcomes as well as subjective health. Shift work is assumed to affect health outcomes via the effect of health behavior. However, literature on the link between shift work and various health-related behavior patterns is limited to a small number of studies revealing inconsistent results. This may be due to moderating mechanisms. Therefore, the aim of the present study was to reinvestigate the link between shift work and health with a focus on potential moderating effects of cognitive abilities, socio-economic status, and personality characteristics (self-control). The sample included N = 5,251 employees (nshift = 645) from the German TwinLife study. Smoking, alcohol consumption, and health examinations were examined as health behavior indicators. Our results showed that shift work had no mean effect on health-related behavior patterns. However, cognitive abilities and the personality factor self-control played a role in determining health-related behavior patterns, but did not moderate any effect. In contrast to objective health indicators, male shift workers subjectively perceived their health worse than day workers. Potential implications – especially those concerning current labor law regulations – will be discussed.

### Which party do you like? On the genetic and environmental sources of political orientation. **Hufer, Anke¹**; Kornadt, Anna E.¹; Kandler, Christian²; Riemann, Rainer¹

<sup>1</sup> Bielefeld University, <sup>2</sup> University of Bremen

Though political orientation is often assumed to be shaped by socialization, previous studies have shown substantial genetic components of variation in political attitudes. The majority of these studies have relied on the classical twin design, which comes with restrictive assumptions, and lack a perspective on age-group differences. We thus investigate political orientation in adolescents (17 years) and young adults (23 years) in a cross-sectional Nuclear Twin Family Design. We use data from the German TwinLife project including data from twins reared together, their biological parents and siblings. We find genetic variation in political orientation to be significant only in the older cohort, which might indicate an increasing importance of active gene-environment correlation from adolescence to adulthood. Individual differences in political orientation due to passive geneenvironment correlation and shared environmental effects are larger in the younger cohort, substantiating the same theoretical consideration and the importance of shared socialization contexts for adolescents' political views. Additionally, we also consider the relationship of political orientation with the Big Five personality traits. Our study enables more robust and fine-grained estimates of genetic and environmental contributions to variance in political orientation and contributes to a better understanding of the nature-nurture interplay that forms political orientation in emerging adulthood.

### Why do vegetarians cluster on the left and believers on the right? Insights from Moral Foundations Theory

Grünhage, Thomas; Reuter, Martin

University of Bonn

While the existence of substantial psychological differences between proponents of right- vs. left-oriented political orientations is still frequently doubted in the general public, vegetarianism and religiosity are willingly accepted to be "rather liberal" vs. "rather conservative" lifestyles. We hypothesized that the clustering of vegetarians on the left and of believers on the right is due to fundamental differences in dispositional moral intuitions between liberals and conservatives as proposed by Moral Foundations Theory. In a sample of 328 German participants we found impressive evidence for a differing prevalence of vegetarianism and religiosity across political camps. Crucially, the relationships between political orientation and both lifestyle-variables were substantially or completely mediated by the extent of binding vs. individualizing moral foundations, i.e. by different moral intuitions. Moreover, when faithful Christians were instructed to answer political questions as "the perfect Christian" would do, the relationship between political orientation and religiosity disappeared. We conclude that the associations between certain lifestyles and political orientations are rather due to a match in fundamental psychological dispositions than logical consequences of political contents per se.

#### **Paper Session 6: Person perception**

TIME 11:00 - 12:30

LOCATION Workshop-Room 4b (WS4b)

CHAIRS Anne Wiedenroth, Technische Universität Dresden

### Abilities Attract? The Effects of Different Types of Intelligence, Social-Emotional Competence, and Creativity on Mate Appeal in Speed Dating

Hofer, Gabriela; Burkart, Roman; Langmann, Laura; Neubauer, Aljoscha C.

University of Graz

An increasing body of research suggests that a person's intelligence affects his/her desirability as a partner, particularly for long-term (LT) relationships. Some studies report that women place more weight on intelligence than men do. There is also indication that creativity can predict a person's short-term (ST) and LT mate appeal independently from intelligence. Intelligence facets might differ in their relationship to mate appeal, given that they seem to be differently observable. However, scientific investigation into this question is still lacking. Equally little is known about the desirability of social-emotional competence in a potential partner. The present study aimed to close these gaps by investigating the effects of verbal, numerical, and spatial intelligence, creativity, and intra- and interpersonal emotional competence on mate appeal. 179 heterosexual individuals (89 female) aged between 18 and 30 (M = 22.5, SD = 2.8) participated in one of seven speed-dating events. After each meeting, individuals rated each other on the aforementioned ability domains and their desire to have a ST and LT relationship with each other. Psychometric measures for all performance domains were completed in a separate session. Social relations modelling within a multilevel modelling framework will be used to examine target effects for ST and LT mate appeal, which will then be predicted from objectively measured and subjectively estimated abilities. Externally rated physical attractiveness will be included as control variable and gender as moderator. This study allows for an ecologically valid investigation of both subjectively rated and objectively measured abilities as determinants of mate appeal.

### How females think about themselves and how they think that significant close others think of them

Forster, Saskia; Drueke, Barbara; Britz, Sara; Gauggel, Siegfried; Mainz, Verena

RWTH Aachen University Hospital

That people foster a positive self-concept becomes evident in positive self-appraisals ("Self-Serving Effect", SSE) and a reduced memory for self-threatening information ("Mnemic Neglect Effect", MNE). Both, SSE and MNE, are closely related to a person's self-esteem. Furthermore, an individual's selfconcept is influenced by assumptions about what significant others think about them, as expressed in the outcome of reflected appraisals. In order to investigate the influence of self-esteem and reflected appraisals on the already known effects (SSE, MNE), a standard trait judgment task and a recall task were conducted with 60 healthy females. Participants assessed themselves rating 25 positive and 25 negative trait adjectives, once from their own perspective and once taking the perspective of a significant close other. Self-esteem was measured using an adapted version of the Rosenberg self-esteem scale. Results revealed the typical pattern of SSE and MNE, both, in the individual's and the 3rd-person perspective, demonstrating the participants' preferred choice of and enhanced memory for positive as compared to negative self-referential traits. Interestingly, findings were more pronounced during reflected appraisals than during self-appraisals, i.e. females tended to view themselves more positive when taking the perspective of the significant close other. As expected, a significant positive association was found between high self-esteem and the SSE in judgments taking the 1st-person perspective, i.e. with increasing self-esteem, the ratio of positive to negative self-appraisals increased as well. In conclusion, both, how healthy females think about themselves and how they think others think about them, facilitate an overall positive self-concept.

#### Accuracy and bias in the social perception of envious states and traits

Hagemeyer, Birk<sup>1</sup>; Lange, Jens<sup>2</sup>; Lösch, Thomas<sup>3</sup>; Rentzsch, Katrin<sup>3</sup>

<sup>1</sup> Friedrich-Schiller-Universität Jena, <sup>2</sup> University of Amsterdam, <sup>3</sup> Otto-Friedrich-Universität Bamberg

Research converges on the notion that when people feel envy, they disguise it towards others. This implies that a person's envy in a given situation cannot be accurately perceived by observers, as envy lacks a specific display that could be used as a perceptual cue. In contrast to this reasoning, research also supports that envy contributes to the regulation of status hierarchies. If envy threatens status positions, people should be highly attentive to identify enviers. The combination of the two led us to expect that (a) state envy is difficult to accurately perceive in unacquainted persons and (b) dispositional enviers can be accurately identified by acquaintances. To investigate these hypotheses, we used actor-partner interdependence models to disentangle accuracy and bias in the perception of state and trait envy. In Study 1, 436 unacquainted dyad members rated their own and their partner's state envy after competing against each other in the lab. Perception bias was significantly positive, yet perception accuracy was non-significant. In Study 2, 502 acquainted dyad members rated their own and their partner's dispositional benign and malicious envy. Accuracy coefficients were positive and significant for both kinds of dispositional envy. Moreover, accuracy for dispositional benign envy increased with the depth of the relationship. Thus, enviers might be identifiable, but only after extended contact. Implications for theory and avenues for future research are discussed.

### The more the better – but more of which? Disentangling the effects of information quantity and perceiver number in person perception.

Wiedenroth, Anne<sup>1</sup>; Weßels, Nele<sup>2</sup>; Leising, Daniel<sup>1</sup>

Person perception models predict person judgments to become more accurate the more information they are based on, i.e., the better acquainted judges are with their targets. This study compares the effect of information quantity on judgment accuracy in two conditions: Targets are judged based on an increasing number of video-taped situations, either by different perceivers (as done in previous research; e.g., Borkenau et al., 2004), or by the same perceiver (as in an actual process of getting to know someone). Self- and peer-ratings of the targets' personalities (using the same items) served as accuracy criteria. Replicating previous research, the accuracy of the video-based ratings increased in an inversely accelerated fashion when including additional situations that were rated by different perceivers. Accuracy maxima were reached after about 3-7 situations, depending on the respective personality dimension. However, when controlling for the expected accuracy increase that is merely due to adding perceivers, not additional situations, the effect of information quantity was considerably weakened (e.g., for Agreeableness and Conscientiousness), or even eliminated (e.g., for Extraversion and Neuroticism). Accordingly, when all ratings came from the same perceiver, accuracy increased with information quantity only for Agreeableness and Conscientiousness, but not for the other personality dimensions. The overall accuracy of such ratings was also much lower. Taken together, the findings suggest that the sheer quantity of information may not play as important a role in impression formation as previously thought, and rather underscores the role of non-shared meaning.

### How to distinguish between self and other: experimental evidence from adjective categorization

#### Weise, Lorenz

Uniklink Aachen

While many researchers have investigated how humans make judgments about themselves and others, these investigations have most often focused on statistics of these decisions (e.g. biases) or correlations between judgments (e.g. accuracy, latent variables). Less is known about the cognitive processes giving rise to self- and other judgments. Similar to research in perceptual decision making, we have devised an experimental task that allows a more fine-grained view on which information is used by participants to decide whether a set of adjectives describes themselves or another person. This is made possible by presenting time-varying, inconclusive evidence about which person is being described (self or other), and correlating this evidence to participants' eventual categorizations. Furthermore, we investigated which factors influence the confidence participants have in their decisions. Results give a novel view of the self-bias in self-other judgments. Furthermore, confidence in self-other judgements turns out to be distorted in a response-consistent fashion, similar to distortions in other decision domains. Implications for models of decision making and self-other judgements are discussed.

<sup>&</sup>lt;sup>1</sup> Technische Universität Dresden, <sup>2</sup> Universität Osnabrück

#### State of the Art Session: Narcissism

TIME 13:30 – 15:00

LOCATION Main Hall (MH)

CHAIRS Michela Schröder-Abé, Universität Potsdam

Mitja D. Beck, Universität Münster

Narcissism is one of the most popular and enigmatic constructs in psychology. Research on the structure, development, processes, and on the social occupational, and health outcomes consequences of narcissism and narcissistic personality disorder has increased dramatically in recent years. Moreover, recent research has been characterized by a large heterogeneity in concepts and methods. It is time for a systematic overview that encompasses different traditions and perspectives. The State-of-the-Art-Session "Narcissism" aims to provide a forum for a debate about the state of knowledge and perspectives for future research on narcissism. Participants of the session include four of the most active and renowned international experts: Joshua Miller, Christopher Hopwood, Carolyn Morf, and Eddie Brummelmann. Besides brief and pointed statements of all experts and a panel discussion, we plan to involve the audience by interactive media and opening up the discussion. We hope to achieve a pointed overview regarding consensus and dissent on the state narcissism research. We also hope for a stimulating outlook at what lies ahead of us, including key open questions, methodological challenges, and new collaborative research strategies.

Hopwood, Chris

University of California

Morf, Carolyn C.

Unviersity of Bern

Brummelman, Eddie

University of Amsterdam

Miller, Josh

University of Georgia

### **Facets of Genetic Differences and Social Inequality**

TIME 13:30 – 15:00

LOCATION Workshop-Room 1 (WS1)

CHAIRS Amelie Nikstat, Universität Bielefeld

Eike Friederike Eifler, Universität Bielefeld

Interindividual differences exist from the very beginning of our lives and can lead to social inequality. Differences in personality, temperament, motivation, and abilities influence our educational performance which in turn is a major factor in determining what kind of school career we complete. The research presented in this symposium is directed at the etiology of predictors or indicators of social inequality. It is characterized by using behavioral genetic modeling techniques that extend the classical twin design to overcome its limitations and get a more fine-grained picture of how nature and nurture are working together to drive individual differences and to some extent social inequality. Christian Kandler is examining data of twins, as well as their parents, spouses and offspring to gain a deeper understanding of the genetic and environmental sources of variance in personality traits. The contributions of nature and nurture on internalizing and externalizing problem behaviors are examined by Amelie Nikstat in a Nuclear Twin Family Design. Alexandra Starr investigates the environmental factors contributions to either academic success or failure while Eike Eifler explores the genetic and environmental contributions to educational performance in different subject and across two cohorts. Last but not least, Rainer Riemann investigates the etiology of the educational attainment using twin family data.

### The Nature and Nurture of HEXACO Personality Trait Differences: An Extended Twin Family Study

Kandler, Christian<sup>1</sup>; Zapko-Willmes, Alexandra<sup>1</sup>; Richter, Julia<sup>2</sup>

<sup>1</sup> Universität Bremen, <sup>2</sup> Universität Bielefeld

This study was designed to provide detailed estimates of genetic and environmental sources of variance in the HEXACO personality traits. For this purpose, we analyzed data from a German extended twin family study including 573 twin pairs as well as 208 mothers, 119 fathers, 228 spouses, and 143 offspring of twins. All participants provided self-reports on the HEXACO-60. Extended twin family analyses using structural equation modeling yielded that additive and non-additive genetic influences accounted for about 50% of the variance in personality traits. The remaining variance was primarily due to individual-specific environmental sources and random measurement error. Spousal similarity in Openness was attributable to assortative mating, whereas spousal similarity in Honesty-Humility was attributable to environmental circumstances, partly due to a shared social background and spouse-specific effects. Our analyses yielded specifics for different personality traits. However, transmission of trait similarity from one generation to the next was primarily genetic.

### Genetic and Environmental Contributions to Internalizing and Externalizing Problem Behavior: Extending the Classical Twin Design

Nikstat, Amelie; Riemann, Rainer

Universität Bielefeld

Internalizing (INT) and externalizing (EXT) problem behaviors are established risk factors for many unpleasant outcomes and psychopathology in adulthood. Understanding the interplay between genes and environment has therefore several implications for practice. Among genetic studies on problem behavior, heritability estimates differ widely. Most research only uses twin data and therefore underlies certain limitations which could lead to biases. Our study is the first investigating genetic influences on INT and EXT by extending the Classical Twin Design to a Nuclear Twin Family Design. Self-reported INT and EXT of 3087 twins, a sibling, and their parents was analyzed with structural equation modelling to estimate heritability separately for each of three twin birth cohorts. Our findings indicate that shared family environment may only play a minor role for behavior problems and that using the Nuclear Twin Family Design can increase the understanding of the etiology of INT and EXT.

#### **Disadvantageous Influences on Educational Performance**

Starr, Alexandra; Riemann, Rainer

Universität Bielefeld

Academic performance in childhood and adolescence is an important indicator regarding social inequalities and life outcomes in adulthood. Consequently, it is of interest to determine which factors contribute to either academic success or failure. Previous research yielded inconsistent findings suggesting either a cumulative effect of disadvantage or a saturation effect for disadvantageous factors. The aim of this study is to gain a deeper understanding of how multiple external stressors (e.g. chronic disease of parent, delinquent behavior, low socioeconomic status, migration, unfavorable parenting style) interact and collectively predict educational performance. The sample consists of 1789 pairs of monozygotic and dizygotic same-sex twins (aged 11 and 17), their parents and a sibling from the German study TwinLife. We carry out multiple regression analyses in order to aggregate influences of numerous stressors on the individual and family level and examine whether an index of the experienced burden can be generated. In addition, we investigate to which extend disadvantageous factors are influenced by genetics and (shared and non-shared) environment with structural equation modelling.

#### **Genetic and Environmental Influences on Educational Performance**

Eifler, Eike Friederike; Riemann, Rainer; Starr, Alexandra

Universität Bielefeld

As differences in educational performance can have a major impact on the development and preservation of social inequalities it is important to explore how these differences arise. Using data of the German twin study TwinLife, genetic and environmental effects on school grades in Mathematics, German and the grade point average (GPA) were identified. Structural equation modelling on the data of monozygotic as well as dizygotic twins and the twins siblings showed substantial genetic effects (up to 62%) in both cohorts on all three variables. Next to genetic influences, the twin-specific environment as well as nonshared environmental influences were found to explain the interindividual differences in the Mathematics and German grade as well as the GPA. An age effect showing itself in higher heritability in the older cohort was found for the mathematics grade and the GPA but not for the German grade. The results are discussed with regard to the differences found between the numeracy and literacy domain in the two age cohorts.

### On the Etiology of School Careers: A Nuclear Twin Family Study Based on a Representative German Sample

Riemann, Rainer; Eifler, Eike Friederike; Hufer, Anke

Universität Bielefeld

Though the traditional German three-tier educational system has gradually been changed in the past decades, attaining either a higher or lower school leaving qualification is still important for adolescents' and young adults' career paths. Unlike school grades, which show a substantial genetic influence, the choice of school type at the age of 11 to 12 years is to a large degree influenced by environmental factors shared within families. Using the TwinLife data set, we examine the etiology of the educational attainment defined as the level of school completed. Data are available from same-sex twins reared together, their parents, and a sibling. This nuclear twin family design overcomes some limitations of the classic twin design and allows to take multiple sources of environments shared by family members into account. Additive genetic (57%), non-shared environmental (13%), environments shared by twins but not by non-twin siblings (30%) explain the variance in educational attainment. The results are discussed with respect to consequences for school and occupational careers.

### **Selection of University Students**

TIME 13:30 - 15:00

LOCATION Workshop-Room 2 (WS2)

CHAIRS Nicolas Becker, University of Saarbrücken

Birgit Spinath, University of Heidelberg

In December 2017 the German Federal Constitutional Court decided that the prominent role of Abitur grades in the selection of medical school applicants is partly unconstitutional and that additional criteria that take greater account of the applicant's aptitude should be considered. The Studierendenauswahlverbund (stav; Student Selection Network) is a joint research project dealing with cognitive and social aptitude criteria of medical students. In this session we will present current developments within the project. Concerning cognitive criteria, we will discuss how reasoning should be measured within admission tests and if test preparation poses a problem within this context. Furthermore, we will present empirical results on the validity of two established tests already used for the selection of medical students. Concerning social criteria, we will give insights on research dealing with the development of a Situational Judgment Test as well as of Multiple Mini Interviews. A final discussion will deal with the question to what extent these findings can be generalized to other study programs with restricted admissions (e.g., psychology, pharmacy).

#### How should we Measure Reasoning in College Admission?

Wilhelm, Oliver<sup>1</sup>; Goecke, Benjamin<sup>1</sup>; Hartung, Johanna<sup>1</sup>; Geiger, Mattis<sup>1</sup>; Schroeders, Ulrich<sup>2</sup>

Reasoning is the core ingredient of fluid intelligence. Reasoning is an indispensable predictor if accounting for college success is the goal. Still, constructing reasoning tasks remained an art much more than a science and this fact is probably due to different reasoning tasks including hardly commensurable or tractable determinants of difficulty. In this presentation we compare a number of reasoning tasks and task classes with each other. The goal of the comparison is to derive recommendations for tasks that serve the purpose of improving college admission. We consider a) wanted (such as efficiency) and b) unwanted (such as vulnerability for strategies) attributes of reasoning tasks. We study c) magnitude of the prediction of item parameters by item attributes and d) fit of simple confirmatory measurement models. Additionally, we e) studied their relationship with working memory capacity and finally examined d) the relevance of language command in a group of non-native speakers. The empirical analyses are based on several studies some of which were conducted in the stav-context. We conclude with recommendations for reasoning tasks.

#### The Influence of Test Preparation on the Results of Figural Matrices Tests in College Admission

Levacher, Julie; Koch, Marco; Spinath, Frank M.; Becker, Nicolas

University of Saarbrücken

Study applicants are interested in scoring as good as possible in admission tests. This gives rise to test coaches that train people in the relevant tasks so that they can achieve better results. As some applicants might not be able to afford such a training this poses a problem for the fairness of admission tests. Furthermore, the construct assessed by the test might be influenced by the training what leads to problems concerning construct validity. Therefore, the goal of this study was to examine in how far test preparation affects test results of a figural matrices test. The sample consisted of n = 882 participants of an admission test for a medical school. Before taking a figural matrices test, one group (n = 461) was introduced to the rules employed in the test while the other group (n = 421) was not. The results show that the group with preparation received significantly higher scores than the group without preparation. However, multi group confirmatory factor analyses indicated no significant differences between the construct validity of the test in the two groups. The results show that preparation has an impact on raw test scores but does not change the construct itself. As an implication one might argue that test preparation should be made public by the test authors in order to guarantee comparability and test fairness.

#### **Testing Cognitive Competence in Applicants for Medical School**

**Zimmerhofer, Alexander**<sup>1</sup>; Hofmann, Arvid<sup>1</sup>; Wittenberg, Tim<sup>2</sup>; Amelung, Dorothee<sup>2</sup>; Klusmann, Dietrich<sup>3</sup>; Kadmon, Martina<sup>4</sup>; Hampe Wolfgang<sup>3</sup>

<sup>1</sup>University of Bonn, <sup>2</sup>University of Heidelberg, <sup>3</sup> University Medical Center Hamburg-Eppendorf, <sup>4</sup> University of Augsburg

Two tests on cognitive competence are applied to select medical students in Germany. The Test for Medical Studies (TMS) was introduced in the 1980s due to the high demand for studying medicine in Germany. As in the meantime, the education system underwent profound changes (e.g., Bologna process) it appears necessary to develop an up-to-date understanding of the role of the TMS within the current system. Accordingly, we seek to highlight in which way assumptions about the TMS are still valid today. We focus on validity aspects such as factor structure, incremental validity beyond high school grades, and links of test results with study grades and duration, respectively. The HAM-Nat is an entrance test for knowledge in natural sciences used at Hamburg medical school since 2008. In a study of cohorts 2012-2015 HAM-Nat results did not correlate with school leaving grades. Age

<sup>&</sup>lt;sup>1</sup> University of Ulm, <sup>2</sup> University of Kassel

over 21 and male gender (d = .51), were associated with better HAM-Nat performance, but effect sizes were small. Migration background had no significant influence. In multiple regression models the HAM-Nat predicted study success incrementally above school leaving grades (r = .31 after correction for range restriction). Male and female applicants do not differ in prognostic validity. In the BMBF-funded joint research project "Studierendenauswahlverbund stav" we intend to combine different parts of cognitive tests to further improve the prediction of study success.

#### Measuring Social Skills via Multiple Mini 'Interviews' - Empirical Results and Implications

Breil, Simon M.1; Hertel-Waszak, Anike1; Knorr, Mirjana2; Marschall, Bernhard1; Back, Mitja D.1

One popular procedure in the medical student selection process are multiple mini interviews (MMIs). However, it remains unclear whether MMIs reliably measure desired social skills or rather general performance differences (across/within-stations). Here, we provide a detailed investigation into the construct validity of MMIs. In Study 1 (N = 376) we used Bayesian generalizability analyses to show that the largest amount of reliable MMI variance was accounted for by station-specific and general performance differences between applicants. In Study 2 we aimed at investigating the underlying structure and predictive power of specific interpersonal behaviors shown within MMI stations. The whole MMI (N = 203 applicants) was videotaped and trained experts rated over 50 specific behavioral cues (e.g., upright posture) across three stations. SEMs show that these behavioral differences can be reduced to the broader constructs of agency, communion, emotional stability, and intellectual competence, which all influence subsequent judgments (irrespective of desired social skill). There was no evidence of biasing factors (e.g., attractiveness). Important implications for the reliable measurement of social skills are: 1) Focus on only one social skill per station that is assessed at multiple stations. 2) Focus on distinct social skills that allocate to either agency, communion, emotional stability, or intellect. 3) Design stations that evoke maximum variability in the respective social skill.

### Use of Situational Judgement Tests for Admission into Medical School: Experiences from the University Medical Centre Hamburg

Knorr, Mirjana<sup>1</sup>; Rudloff, Anne<sup>1</sup>; Breil, Simon M.<sup>2</sup>; Schwibbe, Anja<sup>1</sup>

Situational judgement tests (SJT) are considered a feasible method to test a large number of applicants. The University Medical Centre Hamburg looks for a written alternative to measure psychosocial competencies of all invited applicants. A selection SJT must meet certain quality standards in terms of objectivity, reliability and validity. In 2016, a contextualized SJT was developed and different scenarios and items from this SJT have since been used during the yearly admission process at the University Medical Centre Hamburg-Eppendorf on a voluntary basis (N2016 = 1076; N2017 = 1006; N2018 = 922). With a growing number of items each year, the internal consistency could be raised to a satisfactory value ( $\alpha 2016 = .62$ ;  $\alpha 2017 = .67$ ;  $\alpha 2018 = .82$ ). While SJT performance was neither related to the Abitur grade or performance at a natural science test, we found weak correlations to the performance at a multiple mini-interview (r2016 = .22, p < .01; r2017 = .18, p < .05; r2018 = .15, p < .05). First results on the predictive validity show that the SIT could predict performance at an objective structured clinical examination (r2016 = .20, p < .05). On the other hand, the SJT shows no clear factorial structure and there is no theoretical or empirical evidence to support the use of subject matter experts' responses as scoring standard. In a next step, a construct-based SJTs will be developed to answer these two criticisms and its psychometric properties will be compared to the contextualized SJT.

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# Dynamics on daily experiences across the life span: Where we are and where we (should) go

TIME 13:30 – 15:00

LOCATION Workshop-Room 3 (WS3)

CHAIR Jenny Wagner, Universität Hamburg

In their daily life, individuals experience a diversity of situations that shape their affect and well-being. However, most of the established findings consider daily experiences and related characteristics of situations and persons only in (small) student samples. The present symposium aims at broadening the view on daily experiences by integrating the diverse facets of research with respect to samples, designs, and research foci. To do so, the set of talks showcase findings from four intensive experience-sampling studies, targeting these effects from young adulthood to old age and with different operational approaches focusing either on individuals or couples, on social or stressful situations, on face-to-face or mobile communication settings. Specifically, the first two studies concentrate on daily stressful experiences in two teacher samples (Deventer et al.) and on social support experiences in late life couples (Kura et al.). The second set of studies emphasizes the need to integrate person-situation fit into the study of digital daily experiences on well-being (Kroencke et al.) and to consider the potential positive role of digital communication also in older adults' lives (Macdonald & Hülür). The major aim of this symposium is thus to accentuate the potential of diverse investigations of persons and situations to better understand their effects on daily well-being.

#### The moderating role of personality on daily stress-reactivity in teachers

Deventer, Jennifer; Lüdtke, Oliver; Klusmann, Uta

Leibzig Institute of Science and Mathematics Education

Teacher well-being has been shown to be important for aspects of successful schooling such as the quality of instructions teachers provide and student achievement (e.g., Arens & Morin, 2016; Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008; Klusmann, Richter, & Lüdtke, 2016). Both personality and environmental aspects such as the experience of daily positive and negative events (uplifts and hassles) relate to teacher well-being (Aldrup, Klusmann, & Lüdtke, 2017; Schmidt, Klusmann, Lüdtke, Möller, & Kunter, 2017). However, the role of personality in the daily well-being of teachers has not been sufficiently understood. Following the theoretical model of Almeida (2005) this work investigated personality as cross-level moderator in the relationship between stress exposure and daily well-being across 14 consecutive days in two samples of teachers (N1 = 349, N2 = 150). Daily stress exposure was assessed via the number of reported uplifts and hassles. Well-being was operationalized via emotional exhaustion. Multilevel analyses revealed more neurotic and less extraverted teachers as well as teachers reporting more hassles (especially in the domain of classroom management) than the average teacher to be more emotionally exhausted. On days teachers experienced more uplifts than they did on average they were less emotionally exhausted whereas on days on which they experienced more hassles than on average teachers reported higher emotional exhaustion. Neuroticism was revealed as cross-level moderator for the daily hassles, that is, for more neurotic teachers the slope between the experience of hassles and emotional exhaustion was steeper than for less neurotic teachers. Practical implications are discussed.

### Spousal neuroticism – a blessing or a curse? The role of partner neuroticism for momentary support in older couples

**Kura, Marie-Christin**; Müller, Swantje; Drewelies, Johanna; Wagner, Jenny; Gerstorf, Denis *Humboldt Universität zu Berlin* 

However, in old age, marked by an increasingly negative ratio of developmental gains to losses, having a partner vigilant to resource constraints (i.e. high in neuroticism) might even have protective effects. Extending preliminary evidence indicating a positive association between spousal neuroticism and support in the daily life of older couples, we investigate to what extent the helpfulness of everyday informational and emotional support older adults receive from their partner is associated with partner neuroticism. To address our research question, we will conduct multilevel actor-partner models for distinguishable dyads using data from 83 older couples (aged 66 - 92) who provided up to 35 reports of momentary spousal support over a one-week period as well as one assessment of baseline neuroticism. Findings will shed light into the barley understood micro-level manifestations of spousal neuroticism in older adults.

### The situation is calling: Examining personality-situation fit in computer-mediated social interactions

**Kröncke, Lara¹**; Harari, Gebriella²; Wagner, Jenny¹ *<sup>1</sup> Universität Hamburg, <sup>2</sup> Stanford University* 

Social interactions are a central part of our everyday lives. Although a large body of research documents the positive association between face-to-face social interactions and people's happiness and health, the well-being implications of computer-mediated social interactions are less clear, with previous studies reporting mixed results. Personality traits and situational cues (e.g., the type of interaction partner) may help to explain the inconsistencies in the literature, as both the person and the situation influence the course and outcomes of social interactions. Based on the concept of person-situation fit, we examine the dynamic interplay between face-to-face vs. computer-mediated social interactions and well-being in everyday life. Data was collected as part of a large-scale experience sampling study (N = 1397) at the University of Texas at Austin. For two weeks, students reported which type of interaction they had engaged in during the past 15 minutes and who they had interacted with up to five times per day. They also rated their momentary contentment, loneliness, stress, and energy level. Using multilevel modelling, we will investigate how momentary well-being is related to the type of social interaction and to what extent this association is moderated by the type of interaction partner and by the actor's Big Five personality traits. We will discuss our findings in the context of theories on personality-situation fit and media psychology and outline their practical implications.

### The digital lives of older adults Macdonald, Birthe; Hülür, Gizem

Universität Zürich

Although the use of digital communication technologies is increasing in older adults, research shows that they utilize such technologies less than other age groups. Furthermore, a sizable proportion of the older adult population does not have access to these technologies. Little is known about how older people perceive communication via digital channels in comparison to other channels of communication such as face-to-face contact or telephone calls. In this presentation we will discuss why it is important to study social interactions as they unfold in older adults' daily lives. We will present a study design that aims to understand the role digital communication plays in older adults' lives, how this relates to individual differences in personality and cognition, and how it differs from other types of communication. This will enable us to make recommendations about how to increase technology use in older adults for it to positively impact on their lives.

# The Many Faces of Social Cognition – Insights on Traits, Behaviour and Biology

TIME 13:30 – 15:00

LOCATION Workshop-Room 4a (WS4a)

CHAIR Kristina Meyer, Carl von Ossietzky Universität Oldenburg

Social cognition is a term encompassing traits and abilities relevant for social interaction and decisions. In first taxonomies of social cognition (Happé, Cook, & Bird, 2017; Hildebrandt et al., 2015; Kaltwasser et al., 2016), prosocial behaviour is seen as a higher-order trait that includes intentions and social decisions in the interest of others. Below such complex traits, social cognition abilities influence an individual's likelihood to behave in a manner matching their social values. On the lowest level, biological correlates of these traits and abilities help to explain a person's pattern in social decisions. In this symposium, we bring together studies that approach the construct of social cognition from different angles. The first two talks focus on face processing as a basic social ability. The first study investigates cortical thickness within brain networks of face processing and their association with socially relevant personality traits. The second work gives insights into the role of oxytocin in mothers' gaze sharing and facial expression processing. Thereafter, two talks on prosocial behaviour in social decision games follow. In the third talk, pain in contrast to monetary rewards is proposed as a universal incentive in social games and related to baseline testosterone. The fourth talk focuses on the distinction between the motivational foundations and neurocognitive bases of costly punishment and altruistic compensation in the third-party dictator game.

### Individual Differences in Cortical Thickness of the Core Network of Face Processing and their Association with Interpersonal Traits

Meyer, Kristina<sup>1</sup>; Garzòn, Benjamin<sup>2</sup>; Lövdén, Martin<sup>2</sup>; Hildebrandt, Andrea<sup>1</sup>

<sup>1</sup> Carl von Ossietzky Universität Oldenburg, <sup>2</sup> Karolinska Institute and Stockholm University

The ability to process faces, termed face cognition (FC), is seen as an elementary component of social cognition. Cortical thickness (CT) has been associated with performance and learning. We used data from the Human Connectome Project (HCP; Van Essen et al., 2013) to investigate the neural structures underlying FC by applying structural equation modelling (SEM). Our aims were twofold: (1) since several studies have replicated the finding of a specific factor capturing individual differences in performance accuracy during face cognition tasks above a general factor of cognitive abilities, we strived to apply a comparable factor structure on CT data. To this end, a measurement model of CT was established, consisting of a general factor, indicated by CT in widespread areas across the cortex, and a nested factor, indicated by CT in the areas of the core network of face processing (Haxby & Gobbini, 2011). A nested factor of face-related regions indeed captured specific variance and added to the model fit. In a next step, (2) we investigated brain-behaviour relationships by regressing measures of social cognition on the face-related factor of CT. CT in the core face network predicted general, but not face-specific cognitive abilities. However, socially relevant personality traits were predicted by CT in face-related areas, indicating that the interplay of these regions correlates with positive social outcomes.

### Hormonal Influences on the Neural Mechanisms for Perceiving Eye Gaze and Emotional Facial Expressions

Bagherzadeh Azbari, Shadi<sup>1</sup>; Hildebrandt, Andrea<sup>1</sup>; Geller, Susann<sup>2</sup>; Sommer, Wernen<sup>1</sup>

<sup>1</sup> Humboldt Universität zu Berlin, <sup>2</sup> Carl von Ossietzky Universität Oldenburg

Humans intensely use their faces for transmitting social signals. Therefore, emotional expressions and eye gaze are highly relevant for social interaction. Interestingly, it has been demonstrated that higher levels of the hormone oxytocin facilitate facial expression decoding, especially by increasing the focus on the eye region. It is also discussed that increased basal oxytocin levels in early

postpartum mothers are associated with more intense parenting behavior, such as gaze-sharing. Our study aimed to investigate the effects of oxytocin on neural mechanisms for perceiving eye gaze and emotional facial expressions. We used event-related brain potentials (ERPs) recorded during facial expression and eye gaze perception tasks. Overall, 90 women (45 nullipara and 45 mothers of 2-4 months old infants) took part in the experiment. We focused on two ERP components (N170 & EPN) as a function of changes in eye gaze direction and emotional facial expressions. Identifying the level at which eye gaze and facial emotion perception differs between mothers and non-mothers is a starting point for understanding the degree to which oxytocin affects socio-emotional abilities. Furthermore, we associate objectively measured oxytocin with amplitudes and latencies of ERPs and investigate the mediating effects of ERPs on the hormone-behaviour relation.

#### **Individual Differences in Painful Altruism and Testosterone**

Geiger, Mattis<sup>1</sup>; Wilhelm, Oliver<sup>1</sup>; Gebhardt, Sandra<sup>1</sup>; Pfattheicher, Stefan<sup>2</sup>

<sup>1</sup> Ulm Universität, <sup>2</sup> Aarhus University

Money units have become the universal incentive unit in game theoretical conflicts, despite being criticized for two major reasons: (a) There are individual differences in the subjective value function of money, and (b) the money units are often too small to be considered substantial. We propose that pain is considered universally aversive and can overcome the limitations of money. In a within-subject design (n=54) participants respond to Social Value Orientation and Prisoner's Dilemmas with actual consequences for themselves and believed consequences for a third person. The games were played in three conditions: win money, lose money, and pain. We found that while there are high correlations within money or pain conditions, the correlations between them are very low, indicating that the conditions measure different constructs. Thus, findings based on money games cannot be taken to make universal claims about humans' behavior in conflict situations. To test the distinctiveness of money and pain, we further explored their relations with baseline testosterone and personality dimensions (honesty-humility, agreeableness, and the dark tetrad). We found no significant correlation of testosterone with altruistic behavior in any of the games. The money but not the pain condition was correlated with the personality dimensions. The fundamental question of how to measure altruistic behavior in conflict situations is discussed.

### Costly punishment and altruistic compensation: Behavioral and electro-cortical evidence for the importance of benevolence in altruistic acts

Rodrigues, Johanna; Liesner, Marvin; Hewig, Johannes

Julius-Maximilians-Universität Würzburg

In third party dictator games, "altruistic" or moreover "costly" punishment, the acceptance of losses in order to punish other players for their unfair actions, has been associated with altruism (e.g. Fehr & Fischbacher, 2003). However, "altruistic compensation", the acceptance of losses in order to compensate another player for unfair actions of other players, has also been associated with altruism (e.g. Leliveld et al., 2012). Recently, Rodrigues et al. (2018) showed that punishment is related to trait anger while compensation is linked to trait altruism in a third party dictator game if both actions are available independently. Thus we tried to induce state anger (via movies) during a third party dictator game and measure midfrontal theta activity in EEG. We hypothesized that punishment would be higher after an anger induction than after other movies and that midfrontal theta would be higher before compensation than before punishment, as it is associated with altruistic acts (e.g. Rodrigues et al., 2015). The results indicated that the anger induction led to more punishment if it was the first induced state of the paradigm. Also, midfrontal theta was negatively associated with punishment. This leads to the conclusion that punishment in a third party dictator game is neither linked to altruism nor to midfrontal theta that was previously linked to altruism, but to anger if compensation is possible. Also, benevolence plays an important role in altruism and altruistic acts.

#### **Paper Session 5: Creativity**

TIME 13:30 – 15:00

LOCATION Workshop-Room 4b (WS4b)

CHAIR Saskia Jaarsveld, Universität Kaiserslautern

**Creative Reasoning: Beyond standard Intelligence and Creativity testing** 

Jaarsveld, Saskia; Lachmann, Thomas

TU Kaiserslautern

The Creative Reasoning Task (CRT) goes beyond standard intelligence tests, e.g. the Raven Progressive Matrices (RPM) test, because it asks persons not to solve a logical matrix but to create one. The CRT triggers a process where intelligence operates not in defined but in ill-defined problem space. The CRT also goes beyond standard creativity tests, e.g. the Test of Creative Thinking – Drawing Production (TCT-DP) because it asks persons to create a matrix that, in principle, could be solved by other persons. Hence, the CRT does not trigger a purely divergent thinking process but a design process in which creative and intelligent thinking intertwine. The hypotheses of a) intelligence operating in ill-defined problem space and b) its resulting intertwining with divergent thinking, have been corroborated in many of our studies. Results from the CRT differ from RPM and TCT-DP in developmental trends, cognitive processes, and cognitive neurological data. Results emphasize the importance of creative reasoning for society and the importance of attention for this cognitive ability in education.

#### How much creativity is in the scoring of creativity tasks?

Weiss, Selina; Steger, Diana; Schroeders, Ulrich; Wilhelm, Oliver

Ulm Universität

Creativity is an ability that supposedly predicts important school, academic, and occupational outcomes. In conventional approaches, the scoring of creativity requires time-consuming and expensive coding by trained human raters. In previous literature, fluency tasks were often not only analyzed as simple fluency indicators, but also scored for the originality of the answers given by the authors. Originality scorings of fluency items might reveal answer sequences—like the serial order effect, which implies that participants are getting more creative while answering an item—that would remain undetected if only scored for fluency using simple count scores. In two studies (study 1: N = 142; study 2: N = 298) we investigate answer sequences in fluency tasks scored for originality and aim to compare human originality ratings of such tasks with the computerized rating based on latent semantic distances between the responses of a person. Based on previous findings we expect that a) human ratings of originality are highly related with semantic distances, b) we can replicate the serial order effect based on human as well as computerized scores, and c) describe additional answer sequences that can be found in fluency tasks. Besides, we aim to link such answer sequences with fluid and crystallized intelligence and personality. We discuss the findings in the light of scoring recommendations and highlight advantages of computerized scorings such as transparency and reproducibility.

### On the Relation between Creativity and Intelligence: An Investigation of the Threshold Hypothesis

Steger, Diana; Weiss, Selina<sup>1</sup>; Schroeders, Ulrich<sup>2</sup>; Wilhelm, Oliver<sup>1</sup>

There is an ongoing debate on the relation between intelligence and creativity. Probably the most famous theory on the relation between intelligence and creativity is the threshold hypothesis that states that at least above-average intelligence is necessary for high creativity. Historically, the threshold was assumed to be at an IQ of around 120, but recent findings suggest that the threshold might be more flexible. Hence, results concerning the threshold hypothesis are mixed and there are about as many thresholds reported as studies published on that topic. We argue that another reason for the mixed findings are both conceptual and methodological problems. For the present analyses, we use data from two samples (N1 = 142, N2 = 298) collected at three German universities. Participants completed tasks for fluid and crystallized intelligence and a broad range of different divergent thinking tasks-measuring fluency, originality, and insight as facets of creativity. After checking the relation intelligence and creativity for heteroscedasticity, we examine the effect of intelligence scores on the factor structure of creativity using local structural equation models—a novel approach that allows investigating variance-covariance structures over a continuous moderator variable. We find no systematic changes in the variance of the creativity factors when moderated by fluid or crystallized intelligence. These results do not support the threshold hypothesis. We discuss the findings in light of consensual models of intelligence and their perspective on creative abilities and highlight conceptual and methodological challenges when investigating the relationship between creativity and intelligence.

### Creativity, domain-specific knowledge, and overclaiming: What we can think of, what we know, and what we think we know.

Goecke, Benjamin<sup>1</sup>; Steger, Diana<sup>1</sup>; Weiss, Selina<sup>1</sup>; Schroeders, Ulrich; Wilhelm<sup>2</sup>, Oliver<sup>1</sup>

Overclaiming can be described as people's tendency to exaggerate their own knowledge and abilities. This phenomenon can either be seen as measuring a specific self-enhancement motivation, a distinct cognitive bias, or a distinct form of creative engagement. Regardless the perspective taken, overclaiming behavior inherently poses a massive threat to the validity of psychological measures in high stakes testing, and is also a nuisance in low stakes testing. In order to distinguish between the different interpretations of overclaiming, we juxtaposed overclaiming as measured by a newly developed overclaiming questionnaire with fluid and crystallized intelligence, self-reported knowledge, creativity, and personality. A latent variable analysis for the 298 participants of our multivariate study shows that a) overclaiming—just like self-reported and declarative knowledge shows domain specificity within five broad knowledge domains, b) overclaiming and declarative knowledge, but not self-reported knowledge are moderately related with openness and creativity, and c) declarative knowledge predicts self-reported knowledge, but does not account for any individual differences in overclaiming behavior. Taken together, the results provoke the endorsement of an interpretation that carefully places overclaiming between maximal performance and typical behavior, while acknowledging that overclaiming is clearly connected to a form of being open towards the unknown. Further implications about the very nature of overclaiming and its possible manifestations are discussed.

<sup>&</sup>lt;sup>1</sup> Ulm Universität, <sup>2</sup> Universität Kassel

<sup>&</sup>lt;sup>1</sup> Ulm Universität, <sup>2</sup> Universität Kassel

#### Wed 18 September

## State of the Art Session: How Economic Games Can Elucidate Individual Differences in Prosocial Behavior

TIME 09:30 - 11:00

LOCATION Main Hall (MH)

CHAIRS Isabel Thielmann, Universität Koblenz Landau

Robert Böhm, RWTH Aachen Universität

Simon Columbus, Vrije Universität Amsterdam

Rima-Maria Rahal, Tilburg Universität

Prosocial behavior is vital for the functioning of interpersonal relations, organizations, and societies at large. Correspondingly, the study of prosocial behavior has gained considerable attention across scientific disciplines. Most of this research has relied on economic games, which provide a straightforward and flexible tool to measure actual prosocial behavior in different classes of interdependent situations. A consistent finding of research using economic games implies substantial individual differences in behavior. However, there remain important questions about the processes that give rise to these individual differences as well as about how these differences generalize across games and into the field. In this state-of-the-art session, we bring together diverse research approaches to tackle these questions. Specifically, the session will cover (i) meta-analytic evidence on which traits relate to prosocial behavior in which games, (ii) the role of (individual differences in) subjective perceptions of games, (iii) findings on the cognitive and motivational processes underlying decisions in games, and (iv) evidence on how games can be adapted to study prosocial behavior in real-life settings and in the context of major societal issues such as vaccination and refugee help. Based on this, we will discuss key challenges and open quests for future research and elaborate on how the economic game paradigm can and should be used to further address these important issues.

#### Robert Böhm

RWTH Aachen Universität

**Simon Columbus** 

Vrije Universität Amsterdam

Rima-Maria Rahal

Tilburg Universität

### **Disentangling Cognitive Abilities**

TIME 09:30 - 11:00

LOCATION Workshop-Room 1 (WS1)

CHAIR Florian Schmitz, Ulm Universität

The well-documented finding of positive manifold of intelligence tests may reflect, in part, construct dependence, shared underlying mechanisms and confounding variables, and insufficient purity of the employed assessment instruments. The contributions in this symposium address these challenges using process-dissociation techniques, experimental manipulations, and structure equation modeling to tease apart meaningful components. The first contribution (von Krause, Lerche, Theissen, & Voss) gives an introduction into diffusion modeling that was used to tease apart different components of cognitive ageing. Findings are reported from a meta-analysis and a large multi-variate study conducted by the authors. The next talk (Schmitz & Wilhelm) reports findings from a multivariate study that combines experimental manipulations with response-time and latent variable modeling to tease apart different components (mental

speed, different working memory requirements) supposedly underlying intelligence. Similar techniques were used in the study reported next (Troche, Pahud, & Rammsayer). Combining experimental manipulations of coordination requirements with latent variable modeling supported predictions of the temporal resolution power hypothesis. The final talk (Kretzschmar, Nebe, Spengler, & Ziegler) emphasizes the importance to consider the hierarchical structure of intelligence. Verbal reasoning predicted scholastic achievement as good as the g factor, and considerably better than figural reasoning that has been traditionally used in many studies as a single marker of intelligence. The contributions are discussed (Hilbert), taking into consideration their relevance for intelligence theories and ability assessment.

#### Age differences in diffusion model parameters

Von Krause, Mischa; Lerche, Veronika; Theissen, Maximilian; Voss, Andreas

University of Heidelberg

Older people show slower response times in elementary cognitive tasks than young adults. Whether this well-documented finding can be attributed to a general cognitive slow-down in old age - possibly due to changes in the efficiency of basic neural processes - has become subject to debate in the last years. The drift diffusion model can disentangle three main process components of binary decisions and their RTs, namely the speed of information uptake, the conservatism of the decision criterion and the time needed for encoding and motor response execution. All three components could in turn be responsible for the slower response times found in old adults. We present data from a meta-analysis and a large-scale study using 18 different cognitive tasks. It turns out that older adults generally have longer non-decision times and more conservative decision criteria. For speed of information uptake, we found a more complex, non-linear pattern that also differed between tasks. We discuss the implications of these findings on how exactly fluid intelligence and mental speed are related.

#### Disentangling metal speed, working memory capacity, and intelligence

Schmitz, Florian; Wilhelm, Oliver

**Ulm University** 

Mental speed is moderately related with intelligence, and this relation usually strengthens as complexity of the speed task increases. We predicted that working memory capacity (WMC) is responsible for this moderation by task complexity. In turn, depending on the theoretical stance taken, WMC was postulated to be determined by diverse factors and mechanisms. In order to test and dissociate competing WMC-accounts, we used very easy speed tasks and experimentally manipulated task requirements in terms of binding, executive attention, and secondary memory, respectively. All manipulations were conducted across a set of indicator tasks to allow latent modeling. Performance data from three hundred participants were analyzed using response time modeling techniques and hierarchically-nested confirmatory factor analyses in order to dissociate components of task performance. We will report relations with fluid and crystallized intelligence as well as with classical indicators of WMC and of mental speed.

### The interplay of temporal resolution power, psychometric intelligence and the coordination of mental operations

Troche, Stefan J.; Pahud, Olivier; Rammsayer, Thomas H.

University of Bern

The temporal resolution power (TRP) hypothesis states that higher TRP of the brain as measured by psychophysical timing tasks leads to higher processing speed and better coordination of mental operations and, consequently, to higher general psychometric intelligence (g). In a previous study, the relation between TRP and g was completely mediated by working memory (WM) capacity measured as latent variable (LV) derived from three quite different WM tasks. This mediation

provided evidence for the TRP hypothesis. The interpretation that higher TRP leads to better coordination of mental operations, however, is exacerbated by the broadness of the LV representing WM, which contained probably more WM processes apart from coordination. The present study aimed to further investigate whether the relation between TRP and g is mediated by coordination of mental operations. Stankov's swaps task was applied to systematically increase demands on coordination across three conditions in 228 young adults. TRP was measured by three psychophysical timing tasks, g by a short-version of the Berlin Intelligence Structure (BIS) test. Using fixed-links modeling, error rates in the Swaps task could be described by two LVs representing 1) increasing demands on coordination and 2) additional processes not varying with experimental manipulation. Both Swaps-LVs and TRP correlated significantly with g. Preliminary results of mediation models revealed that the coordination LV lost its predictive power when predicting g together with TRP. TRP still directly predicted g indicating that the relation between g and coordination of mental operations relies on TRP as assumed by the TRP hypothesis.

### Which intelligence construct is most highly associated with school grades?-No, it's not the one assessed with matrices tests

Kretzschmar, Andre<sup>1</sup>; Nebe, Stephan<sup>2</sup>; Spengler, Marion<sup>2</sup>; Ziegler, Matthias<sup>3</sup>

<sup>1</sup> University of Tuebingen, <sup>2</sup> University of Zurich, <sup>3</sup> Humboldt-Universität zu Berlin

Most structural theories of intelligence contain a hierarchically organized construct with a broad gfactor at the apex and specific abilities at the lower levels. As intelligence is one of the most important predictors of school grades, the question arises which of these abilities on different hierarchical levels show the highest association with school grades. The focus of the first study (N=227) was a comprehensive measurement of intelligence and GPA of the final high school diploma. In the second study (N=451), a more specific assessment of reasoning, GPA, and subject-specific grades were used. Based on structural equation modelling, the findings demonstrate that reasoning (rmax=.42) was similarly related to academic achievement as the g-factor (rmax=.41), but more strongly related than perceptual speed (rmax=.20), memory (rmax=.36), or fluency (rmax=.30). On a more fine-grained level, verbal reasoning (rmax=.42) and numerical reasoning (rmax=.41) showed higher associations with academic achievement compared to figural reasoning (rmax=.25). With regard to subjectspecific grades, some associations with specific abilities (e.g., biology and verbal reasoning) were stronger compared to broader abilities (e.g., biology and general reasoning). In line with the Brunswik symmetry principle, the findings highlight the importance of considering the hierarchical structure of intelligence. On average, verbal reasoning was most strongly associated with school grades. We conclude that the widespread use of intelligence tests similar to Raven's Matrices (i.e., assessing only figural reasoning) might lead to an underestimation of the association between intelligence and academic achievement.

# Life transitions and personality development in the domains of love, work, and family

TIME 09:30 – 11:00

LOCATION Workshop-Room 2 (WS2)

CHAIR Eva Asselmann, Humboldt University of Berlin

Theory and research suggest that age-graded major life events play a key role for personality development. The Neo-Socioanalytic Model assumes that age-graded life events often relate to novel social roles, role demands and behavioral expectations to behave in a more mature way. Personality is assumed to develop due to increased psychological and behavioral investments in these roles. However, previous studies on transactions between individual life events and personality provided mixed results. Moreover, little is known on how perceived event characteristics as well as motivational and self-regulatory strategies during specific

transition phases relate to personality changes and associated outcomes over time. In this session, we present novel meta-analytical and original findings concerning the following research questions: (1) Which reciprocal transactions exist between individual major life events in the domain of love and the Big Five personality traits? (2) How do specific work conditions and outcomes longitudinally relate to self-esteem development? (3) Why do individuals perceive age-graded major life events differently and how do such perceived event characteristics relate to personality changes? (4) Which motivational and self-regulatory strategies do people use during specific transition phases and how are these strategies involved in the adjustment process over time? We discuss our findings and their implications for theoretical models and future research.

### Taking the ups and downs at the rollercoaster of love: Reciprocal transactions between major life events in the domain of romantic relationships and the Big Five personality traits

Asselmann, Eva; Specht, Jule

Humboldt University of Berlin

Finding a partner and being happy in love are important goals that many individuals have in their life. Who experiences specific events in the domain of romantic relationships and how do they relate to personality changes? This study examined reciprocal transactions of moving in with a partner, marriage, separation and divorce with the Big Five personality traits. We used data from the Socio-Economic Panel Study (SOEP), a large and nationally representative panel household study from Germany with ongoing yearly assessments since 1984 (N = 46,114). Life events were assessed yearly and personality was measured repeatedly in 2005, 2009, 2013 and 2017. We applied a novel statistical approach to simultaneously model personality differences between individuals with and without these events as well as continuous and discontinuous personality changes prior to and after these experiences. Findings revealed that individuals who moved in with a partner, got married or separated had lower levels on (some of) the Big Five personality traits and these effects varied by gender. Participants who moved in with a partner became gradually less conscientious within 3 years after the event. Individuals (especially women) who got married were less open thereafter, but slightly more open in the first year of being married. Individuals who got divorced (especially women) became gradually more emotionally stable within 3 years after this experience. We discuss our findings and their implications.

### Work conditions, work outcomes, and self-esteem development in adulthood: A meta-analysis of longitudinal studies

Krauss, Samantha; Orth, Ulrich

University of Bern

Prior research suggests that people's self-esteem positively predicts their work conditions (e.g., support by supervisors and colleagues) and work outcomes (e.g., job satisfaction, job success). But does the work domain also affect an individual's level of self-esteem? In the present meta-analysis of longitudinal studies, we summarize the available evidence on prospective reciprocal effects between work variables and self-esteem, controlling for prior levels of the predicted variables. The following work variables were examined: job satisfaction, job success, income, positive and negative work behavior, social resources and stressors, job resources and stressors, and employment status. For the analyses, we computed random-effects models using the metafor package in R (Viechtbauer, 2010). As effect size measure, we used standardized regression coefficients. We present the major findings on how work conditions and outcomes prospectively predict self-esteem development and vice versa, as well as moderators of these effects.

#### Life event perception and character growth

Faßbender, Ina; Luhmann, Maike

Ruhr-Universität Bochum

Although individuals may experience similar age-graded life events, their perception of these events may differ substantially. The aim of this study was to longitudinally examine associations between personality, life event perception and character growth. We strived to examine how personality and personality changes relate to life event perception and how perceived event characteristics relate to character growth. We used data from the ongoing longitudinal study "What's NEXT? Dein Leben in einer neuen Phase" (www.whatsnext.rub.de), which started in July 2018. We focused on young adults in specific transition phases, e.g. from high school to work or to university or from university to work. These transition phases are known to be associated with age-graded life events and changes in various life domains. We used a dimensional approach to describe individual characteristics of different life events, such as predictability or controllability. We further assessed information on personality and character growth, including gratitude, humility, open-mindedness, altruism, empathy, wellbeing, the Big Five and life satisfaction. We present our major findings as well as the possible advantages of assessing event characteristics to examine the role of life events for personality development.

#### Self-regulation and developmental transitions in partnership and family life

Koch, Lisanne; Neyer, Franz J.; Mund, Marcus

Friedrich Schiller University Jena

Having goals in life, being persuaded of the importance of these goals and finally achieving them is strongly related to positive affect and wellbeing. However, goal attainment can be hampered by agerelated challenges (e.g. developmental transitions, chronic stressors, or critical life events). In their Motivational Theory of Life-Span Development (MTD), Heckhausen, Wrosch and Schulz (2010) propose that motivational and self-regulatory processes play a central role in meeting these goal-related challenges. In particular, MTD specifies goal engagement, goal disengagement and goal reengagement strategies that serve different functions in individual self-regulation. While these strategies have been frequently targeted in psychological research, little is known about their long-term effects on individual life-span development and their interplay during concrete life transitions. In the present study, we used data from the representative German Family Panel (pairfam, N = 5436). By using state-of-the art structural equation modeling techniques, we investigated the stability and change of the self-regulatory strategies and shed light on inter-individual differences in regulating intra-individual life-span development. We paid particular attention to the adaptive value of goal engagement, disengagement and reengagement in times of major life transitions in the domains of love and family.

### Narcissism: Popular stereotypes and intrapersonal dynamics

TIME 09:30 - 11:00

LOCATION Workshop-Room 3 (WS3)

CHAIR Eunike Wetzel, Otto-von-Guericke Universität Magdeburg

Narcissism is a fascinating multi-faceted trait that is related to important outcomes. This symposium consists of five studies investigating popular stereotypes related to narcissism in specific populations (only children, rich people) and the dynamics of narcissism in terms of leadership emergence and within-person fluctuations. Importantly, the studies investigate narcissism within a common framework, the Narcissistic Admiration and Rivalry Concept. The first two talks address popular stereotypes. First, Michael Dufner will

present a study that investigated the prevalence and accuracy of the stereotype that only children are more narcissistic than people with siblings. Second, Marius Leckelt investigates whether rich people are more narcissistic than others by analyzing the perceived and self-reported personality profiles of high net-worth individuals. The second set of talks deals with the dynamics of narcissism. Tobias Härtel will present a study on the behavioral processes underlying narcissists' leadership emergence in social groups. Lastly, two studies analyzing data from two diary studies on within-person fluctuations in narcissism states will be presented. Ina Mielke focuses on the distribution and stability of cognitive, emotional, and behavioral narcissism states while Simon Mota examines how narcissism state contingencies such as feeling admired and rejected relate to trait narcissism and other personality domains.

#### The End of a Stereotype: Only Children are not More Narcissistic Than People With Siblings

Dufner, Michael<sup>1</sup>; Back, Mitja D.<sup>2</sup>; Oehme, Franz F.; Schmukle, Stefan C.<sup>1</sup>

The current research dealt with the stereotype that only children are more narcissistic than people with siblings. We first investigated the prevalence of this stereotype. In an online study (Study 1, N = 556), laypeople rated a typical only child and a typical person with siblings on narcissistic admiration and narcissistic rivalry, the two subdimensions of the Narcissistic Admiration and Rivalry Questionnaire. They ascribed both higher admiration and higher rivalry to the only child. We then tested the accuracy of this stereotype by analyzing data from a large and representative panel study (Study 2, N = 1,810). The scores of only children on the two narcissism dimensions did not exceed those of people with siblings, and this result held when major potentially confounding covariates were controlled for. Taken together, the results indicate that the stereotype that only children are narcissistic is prevalent but inaccurate.

### The rich are different: Unravelling the perceived and self-reported personality profiles of high net-worth individuals

**Leckelt, Marius**<sup>1</sup>; Richter, David<sup>2</sup>; Schröder, Carsten<sup>2,3</sup>; Küfner, Albrecht C. P. <sup>4</sup>, Grabka, Markus M.<sup>2</sup>; Back, Mitja D.<sup>4</sup>

Beyond money and possessions, how are the rich different from the general population? Drawing on a unique sample of high-net-worth individuals from Germany (≥1 million Euro in financial assets; N = 130), nationally representative data (N = 22,981), and an additional online panel (N = 690), we provide the first direct investigation of the stereotypically perceived and self-reported personality profiles of high-net-worth individuals. Investigating the broad personality traits of the Big Five and the more specific traits of narcissism and locus of control, we find that stereotypes about wealthy people's personality are accurate albeit somewhat exaggerated and that wealthy people can be characterized as stable, flexible, and agentic individuals who are focused more on themselves than on others.

#### Narcissists' pathways to leadership in naturally emerging social groups

**Härtel, Tobias Marc¹**; Leckelt, Marius²; Küfner, Albrecht C. P. ¹; Grosz, Michael³; Nestler, Steffen⁴; Back, Mitja D.¹

Grandiose narcissism has mostly been studied as a trait variable with a focus on differences between individuals. Recent studies suggest that individuals also vary in their narcissistic tendencies on a state level and that these within-person fluctuations in narcissism are psychologically meaningful. Here, we extend this work by (a) providing a comprehensive description of fundamental characteristics of narcissism state density distributions and (b) examining a set of narcissism-relevant states in accordance with the Narcissistic Admiration and Rivalry Concept. Specifically, we use data from two large daily diary studies (Study 1: N = 102, 82 days; Study 2: N = 104, 56 days) to investigate the

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distribution and stability of location (mean, median, and mode), size (minimum, maximum, and standard deviation), and shape (skew and kurtosis) parameters of several cognitive (e.g., perceived fulfillment of achievement and power motives), emotional (e.g., feeling of being admired and rejected), and behavioral (e.g., agentic and hostile behavior) narcissism states. We further examine how these distribution parameters are associated with admiration and rivalry traits and other trait measures (Big Five, self-esteem). Implications for future research on narcissism state dynamics will be discussed.

### Within-Person Fluctuations in Narcissistic Admiration and Rivalry States: Distribution, Stability, and State-Trait Relations

Mielke, Ina<sup>1</sup>; Mota, Simon<sup>1</sup>; Geukes, Katharina<sup>1</sup>; Nestler, Steffen<sup>2</sup>; Back, Mitja D.<sup>1</sup>

Grandiose narcissism has mostly been studied as a trait variable with a focus on differences between individuals. Recent studies suggest that individuals also vary in their narcissistic tendencies on a state level and that these within-person fluctuations in narcissism are psychologically meaningful. Here, we extend this work by (a) providing a comprehensive description of fundamental characteristics of narcissism state density distributions and (b) examining a set of narcissism-relevant states in accordance with the Narcissistic Admiration and Rivalry Concept. Specifically, we use data from two large daily diary studies (Study 1: N = 102, 82 days; Study 2: N = 104, 56 days) to investigate the distribution and stability of location (mean, median, and mode), size (minimum, maximum, and standard deviation), and shape (skew and kurtosis) parameters of several cognitive (e.g., perceived fulfillment of achievement and power motives), emotional (e.g., feeling of being admired and rejected), and behavioral (e.g., agentic and hostile behavior) narcissism states. We further examine how these distribution parameters are associated with admiration and rivalry traits and other trait measures (Big Five, self-esteem). Implications for future research on narcissism state dynamics will be discussed.

### The Daily Dynamics of Narcissism: Distribution, Stability, and Trait-relations of Admiration and Rivalry State Contingencies

Mota, Simon<sup>1</sup>; Mielke, Ina<sup>1</sup>; Geukes, Katharina<sup>1</sup>; Nestler, Steffen<sup>2</sup>; Back, Mitja D. <sup>1</sup>

Following the Narcissistic Admiration and Rivalry Concept and recent theories on narcissistic pursuit of status, we will examine a set of within-person state-contingencies that are thought to characterize the dynamics of narcissism. Using data of two daily diary studies (Study 1: N = 102, 82 days; Study 2: N = 104, 56 days;), we will examine a set of preregistered contingencies among several narcissism-relevant state variables that were assessed at each day: the (non)fulfillment of achievement and power motives, the feeling of being admired and rejected, assertive and hostile behavior. First, we will describe the strength of these states' contingencies and their variability across individuals. Second, we will determine the stability of these states' contingencies over time. Finally, we will analyze how these state-contingencies are moderated by trait narcissism and related personality aspects (e.g., extraversion, agreeableness). We expect large and stable individual differences in narcissism state contingencies. Moreover, individuals higher in trait narcissism are expected to show higher contingencies between narcissism-relevant states (e.g. to react more strongly with feelings of admiration/rejection and with assertive/hostile behaviors to success/failure in status pursuit). Implications of the results for a more dynamic conceptualization and investigation of individual differences in narcissism will be discussed.

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#### **Processes of Perfectionism**

TIME 09:30 – 11:00

LOCATION Workshop-Room 4a (WS4a)

CHAIRS Christine Altstötter-Gleich, Universität Koblenz-Landau

Elisabeth Prestele, Universität Koblenz-Landau

Since the 1990s, it has been widely accepted that perfectionism can be best defined as a two-dimensional personality trait. The two dimensions perfectionistic striving resp. standards (PS) and perfectionistic resp. evaluative concerns (PC) are associated with different processes, which are supposed to be the basis for differences in their adaptivity. The contributions of this working group are mainly concerned with these processes. Three of the contributions focus additionally on the interaction of PS and PC. Jutta Stahl and André Mattes show differences in the handling of errors at the behavioral as well as at the neuronal level depending on the level of PS and PC, Elisabeth Prestele investigates the buffering effect of PS across specific operationalizations of PS and PC and Christine Altstötter-Gleich reports results on the effects of PS and PC on expected and achieved grades of students as well as on the role of perfectionist self-presentation tendencies. Dorota Reis and Elisabeth Prestele expand the focus on perfectionistic cognitions and show that they play an important role for recovering from daily job demands along with trait perfectionism. Jana Gäde and Karin Schermelleh-Engel stress the problem of using non-normally distributed variables for the classification of perfectionism types and compare different approaches that take the non-normality of the data into account.

#### Being a low standards perfectionist? A study on the 2x2 model of perfectionism Elisabeth Prestele

Universität Koblenz-Landau

The 2x2 model of perfectionism states that a combination of low Perfectionistic Strivings (PS) with high Perfectionistic Concerns (PC) is associated with more negative psychological outcomes than any other combination of the two dimensions of perfectionism. One explanation is that this is due to the lack of self-imposed standards (low PS) in combination with the perception that perfectionistic standards are imposed by ones environment (high PC). Internalized standards (high PS) might, however, buffer negative effects of PC. This assumption has previously been supported in associations with academic autonomy when PC were assessed by socially prescribed perfectionism (SPP, MPS-H) that explicitly focuses on perceived external pressure. In the present study (N = 619) we compared two operationalizations of perfectionism with a different focus: The MPS-H and the APS-R that specifically focus on self-imposed standards (discrepancies). In support of the internalization assumption a) response patterns of combinations in PS and PC should support the 2x2 model predictions and b) discrepancies should have more positive effects than SPP. Overall the subscales of the APS-R explained considerably more variance in neuroticism than the subscales of the MPS-H whereas the effects were comparable across the APS-R and MPS-H for most facets of conscientiousness. Concerning neuroticism, the main effect of PS predicted by the 2x2 model was only supported for the APS-R. Concerning conscientiousness, the response patterns supported the 2x2 model for both scales. Significant interactions of PS and PC supported the buffering effect of PS. The relevance of externalized standards will be discussed.

## Differences in performance goals of the 2x2 perfectionism types Altstötter-Gleich, Christine

Universität Koblenz-Landau

In their 2x2 model, Gaudreau and Thompson postulate that High Concerns Perfectionism, (HCP; a perfectionism type characterized by low perfectionistic strivings combined with high perfectionistic concerns) is associated with the most negative consequences for mental health. The aim of the present study was to examine whether this assumption can be supported by specific performance

targets and whether this type is associated with performance losses. Since the level of standards and concerns is usually measured with self-report measures, the role of perfectionist self-presentation tendencies was explored additionally. Prior to their first examination (K=2), 132 psychology students were asked to indicate which grades they expected at best and which grades they would still be satisfied with. The grades achieved were recorded after their announcement. Moderated regression analyses showed that the four types of perfectionism differed neither in terms of the grades achieved nor in the expected top marks. In contrast, the grades considered as being just satisfactory were significantly higher for HCP students than for students of the other perfectionism types. This indicates a low frustration tolerance of the HCP type, which can be considered to be a cause of the poor mental health of this type. However, the effect was mediated by perfectionist self-portrayal tendencies. Consequences for the validity of the HCP and its measurement are discussed.

### Learning from your errors: an investigation of perfectionism related variations in error processing

Stahl, Jutta; Mattes, André

Universiy of Cologne

In previous studies, people with high perfectionistic standards (PSP) showed on the behavioural level (e.g., post-error adaptation) as well as on the neural level (error negativity, error positivity) that they process errors more deeply to optimize their behaviour (optimisation hypothesis of PSP). However, the data indicate for people with high evaluative concern perfectionism (ECP) that they tend to avoid error processing (avoidance hypothesis of ECP). To test these hypotheses in a more difficult task, a newly developed 8-alternative response task was used. The participants (N = 140) were asked to respond as fast and as correct as possible to a set of eight symbols with one of eight fingers. After each response, the participants were asked to evaluate the (in)correctness of their response using an 8-point confidence rating. The task allowed to investigate behavioural and neural parameters in different error types. High PS-perfectionists showed more post-error slowing, they were more confident about their responses, applied less force to the keys and showed less position errors compared to low PS-perfectionists. High EC-perfectionists showed more errors in difficult conditions (e.g. central fingers: middle and ring finger), committed more position errors, showed no post-error adaptation and they showed less activity in early error processing (reflected by error negativity) compared to low EC-perfectionists. The behavioural findings as well as the neural data supported the optimisation hypothesis of PSP and the avoidance hypothesis of ECP. A differential analysis of the different error types allowed to develop a deeper understanding of adaptive and maladaptive error processing.

#### The role of trait and state perfectionism in recovery from daily job demands

Reis, Dorota<sup>1</sup>; Prestele, Elisabeth<sup>2</sup>

<sup>1</sup> University of Saarbrücken, <sup>2</sup> Universität Koblenz-Landau

Recovery has been proposed to be a mediator of the relation between an individual's responses to stressful work-related experiences and mid- and long-term mental health. In this vein, meta-analytical reviews have shown that job demands represent important predictors of recovery and that recovery is negatively related to strain and positively related to well-being. However, the number of studies that have examined the role of personal characteristics in the associations between job demands, recovery, and strain is considerably small. One personal characteristic that might specifically interfere with recovery is perfectionism, which has been considered an important vulnerability factor for the development of psychological disorders. Hence, the goal of the present preregistered study was to extend research on recovery by introducing trait perfectionism and state perfectionistic cognitions as moderators of the aforementioned relations. We predicted that trait and state perfectionism would moderate the associations between job demands (i.e., role ambiguity and unfinished tasks) and detachment and the associations between job demands and strain (i.e., fatigue and sleep quality). To test our hypotheses, we conducted an experience sampling study (N=158 employees) with three measurement occasions per day over the course of 3 working weeks. Applying

Bayesian multilevel path modeling our analyses supported the important role of detachment in predicting strain over time. Additionally, trait and state perfectionistic concerns were significant predictors (but not moderators) in the process, whereas trait and state perfectionistic strivings were mostly unrelated to detachment and strain. We discuss implications for future research avenues within the stressor-detachment framework.

## Classification of perfectionists under non-normality Gäde, Jana C.

*University of Frankfurt* 

Perfectionists are mainly characterized by the two core dimensions of perfectionism, i.e., perfectionistic standards and perfectionistic concerns. These dimensions have been used to classify different types of perfectionism based on the respective pattern of high vs. low perfectionistic standards and perfectionistic concerns, which resulted in the tripartite model (Stöber & Otto, 2006) and the 2x2 model (Gaudreau &Thompson, 2010) of perfectionism. The underlying dimensions are generally measured by self-report questionnaires such as the Frost Multidimensional Perfectionism Scale (MPS-F; Frost et al., 1990). The resulting sum scores of these scales, especially the perfectionistic concerns scores, generally deviate from the normal distribution. This non-normality of the data is usually not explicitly taken into account when classification approaches are utilized, which, however, can be prone to biased results due to non-normality. In this study (N = 481), different approaches are compared to evaluate the robustness of these models when non-normality of the data is taken into account. Theoretical implications for the classification of perfectionists are discussed.

#### **Paper Session 10: Culture**

TIME 09:30 – 11:00

LOCATION Workshop-Room 4b (WS4b)

CHAIRS Michaela Heinecke-Müller, Universität Koblenz-Landau

### Measurement Invariance of a Two-dimensional National Identification Scale Across Five Countries

Li, Mengyao<sup>1</sup>; Watkins, Hanne<sup>2</sup>; Leidner, Bernhard<sup>2</sup>; Baumert, Anna<sup>1</sup>

<sup>1</sup> Max Planck Institute for Research on Collective Goods, <sup>2</sup> University of Massachusetts Amherst

Recent research suggests that it is important to distinguish between different sub-dimensions of national identification, such as attachment and glorification (Roccas, Klar, & Liviatan, 2006). Whereas attachment refers to the perceived importance of and commitment to one's country, glorification refers to beliefs in ingroup superiority and unconditional deference to ingroup norms and authorities. These two dimensions of identification have differential effects on intergroup outcomes such as support for inter-state violence (e.g., Li, Leidner, Euh, & Choi, 2016). While the twodimensional identification scale has been used in different countries, no research to date has assessed its cross-cultural invariance and validity. As part of a larger cross-country project, the current study investigated the measurement invariance of the (shortened) national identification scale in five countries, including the United States, Australia, the United Kingdom, France, and Germany (total N = 1,303). We also tested whether glorification and attachment differentially predicted support for military and diplomatic conflict resolution (CR) strategies in response to international conflicts across the five countries. Multi-group confirmatory factor analyses revealed weak, but not strong, measurement invariance of the two-factor structure of national identification, as well as the two-factor structure of military and diplomacy CR. Additionally, fixing the regression weights for the paths from attachment/glorification to military/diplomatic CR did not significantly lower the model fit. Whereas glorification predicted support for military CR positively and support for diplomacy negatively, attachment showed the exact opposite pattern. Implications for studying national identification cross-culturally will be discussed.

### Compiling cross-culturally measurement invariant personality measures using Ant Colony Optimization

Jankowsky, Kristin; Olaru, Gabriel; Schroeders, Ulrich

Universität Kassel

The possible influence of culture on personality and its unbiased assessment is the main subject in cross-cultural personality research. Recent large-scale studies examining cross-cultural personality differences share substantial methodological and psychometric shortcomings that render it difficult to make meaningful statements. One prominent example is the implicitly assumed measurement invariance of translated personality questionnaires. In the rare cases in which measurement invariance across cultures is tested, scalar measurement invariance, unfortunately, does not hold, which is, however, required for mean-level comparisons of the personality traits. To address this issue, we applied Ant Colony Optimization (ACO), a recently developed metaheuristic procedure that is capable of compiling culture-invariant measures of personality while simultaneously optimizing further psychometric criteria such as model fit or reliability. We constructed such short scales for all personality traits measured with the IPIP-NEO-300 for groups of culturally similar (USA, UK, Australia, Canada) and different countries (USA, India, Sweden, Singapore). In addition to examining factor mean differences across countries, we also studied acquiescence effects and compared selected items between the culture groups. We discuss the universality of a common personality measure across countries and provide suggestions for cross-cultural research in general. From a methodological perspective, we demonstrate the versatility and flexibility of ACO as an item sampling procedure to derive measurement invariant short scales for cross-cultural research.

### "A person is a person through other persons": work-related personality features in Germany and Kenya

**Heinecke-Müller,** Michaela<sup>1</sup>; Quaiser-Pohl, Claudia<sup>1</sup>; Kariuki, Priscilla W.<sup>2</sup>; Miczka, Julia<sup>1</sup>; Arasa, Josephine N.<sup>3</sup>

<sup>1</sup> University of Koblenz-Landau, <sup>2</sup> University of Nairobi, <sup>3</sup> United States International University of Nairobi

Cross-cultural psychology has come to an emic-etic approach when examining transcultural contexts such as international human resources management. Building on research findings of the Five-Factor Model and the SAPI Project, this pilot study reports from a larger German-Kenyan research project investigating major personality factors and their correlates in both cultures concurrently. Intercultural differences between Germany and Kenya are evaluated with regard to their functional effects on coping and development in the occupational context. Different cultural contexts should bring up different styles of action and coping (e.g. the African idea of "Ubuntu"), but may have comparable outcomes such as well-being and job performance. Just how should one meet the problem of cultural diversity and measurement invariance? Quantitative and qualitative measures of two different instruments on Core Self-Evaluations (efficacy beliefs, control) were applied, together with typical external criteria such as well-being, learning motivation and job performance. Results show that personality tests cannot be easily transferred from one culture to another. While self-efficacy seems to foster well-being and learning motivation in both cultures similarly, the validity of tests for the same construct differs widely. On the other hand, if certain requirements are met, the prediction of criteria gets manageable.

#### How personality and educational media influence meat and dairy consumption

Von Borell, Christoph<sup>2</sup>; Pfeiler, Tamara<sup>1</sup>; Gerlach Tanja M.<sup>2</sup>

<sup>1</sup> Universität Goettingen, <sup>2</sup> Universität Mainz

Our society `s meat and dairy consumption is discussed as a main factor in climate change, human disease, and animal suffering. Animal advocacy groups and the public media take leading roles in informing and educating the public about the potential consequences of meat and dairy consumption. But are such educational efforts actually capable of influencing peoples' dietary choices or beliefs? In a preregistered, longitudinal, and randomized controlled trial (total N = 648), we investigated the effectiveness of watching a video of undercover investigations in German animal husbandry plants produced by an animal advocacy group and a video of environmental

consequences of meat consumption produced by German news magazine vs. an unrelated video that served as the control condition. Potential changes in dietary choices were assessed via beliefs about eating meat using the Carnism Inventory (Monteiro & Pfeiler, 2016) and a self-developed dietary journal. The outcome measures were assessed right before, one week after, and one month after the video intervention. Our results will contrast the effectiveness of the two educational videos about animal farming in eliciting short- and midterm changes in dietary beliefs and choices and how their effectiveness interacts with the participant's personality and attitudes (Big Five domains and facets, sexism, and narcissism). We also replicate previously found correlations between personality and meat consumption, for example negative correlations with openness and tender-mindedness and a positive correlation with sexism. Together, the results further our understanding of the factors underlying the consumption of animal source food.

## State of the Art Session: Personality Development

TIME 11:30 – 13:00

LOCATION Main Hall (MH)

CHAIRS Cornelia Wrzus, Ruprecht Karls University Heidelberg

Mitja Back, University of Münster

Wiebke Bleidorn, University of California, Davis

Rainer Riemann, Bielefeld University

Over the last decades, evidence cumulated that personality traits exhibit both continuity and change—not only in childhood, adolescence, and young adulthood, but throughout the entire lifespan. Most researchers agree that biological and environmental factors contribute to continuity as well as change. Multiple studies demonstrated effects of genetic factors, life events, and daily experiences, often in relation to social relationships. Yet, the specifics, for example which genes and which life events contribute under which circumstances and how strongly to continuity and change, are a matter of ongoing discussion. During the state-of-the-art session, Mitja Back, Wiebke Bleidorn, Rainer Riemann, and Cornelia Wrzus will discuss, which aspects of personality development are well documented by empirical evidence, which aspects are rather ambiguous, and which aspects are unknown or conjectural.

# Solutions to methodological challenges in the equivalent assessment of personality traits and values

TIME 11:30 – 13:00

LOCATION Workshop-Room 1 (WS1)

CHAIR Matthias Bluemke, GESIS – Leipzig Institute for the Social Sciences

This symposium unites contributions on the equivalent assessment of personality traits and values. Bluemke and colleagues highlight three weaknesses of current item selection processes that undermine invariant personality assessment: 1) questionable content validity of items/scales; 2) translatability/cultural adaptability not being considered during item generation/selection; 3) naïve assumptions about item homogeneity as a sufficient justification for reflective measurement. The revised English and German IPIP-VIA-R scales address these weaknesses and improve the cross-cultural equivalence of measures of virtue and character. Partsch and colleagues investigate the higher-order structure of the resulting 24 IPIP-VIA-R short scales. Overcoming the idea of a single true higher-order structure (confirmatory factor-analytic logic), they demonstrate the utility of the Bass-Ackwards method, which identifies multiple useful levels of

abstractness suitable for comparing personality dimensions across cultures. Cross-cultural equivalence of measuring religiosity has been left wanting. Groskurth & Bluemke demonstrate the equivalence of a new religiosity measure even across specific religious groups that differ in fundamental assumptions about the world. Miyamoto & Lechner emphasize the importance of time-invariant measurement. They show how to model six time points in a longitudinally invariant measurement model, allowing to detect true change of reading interest across adolescence.

# Toward Shorter (and More Content-Valid) Measures of Character Strengths: Revising the IPIP-VIA Scales

Bluemke, Matthias<sup>1</sup>; Partsch, Melanie Viola<sup>1</sup>; Lechner, Clemens<sup>1</sup>; Saucier, Gerard<sup>2</sup>

<sup>1</sup> GESIS – Leipzig Institute for the Social Sciences, <sup>2</sup> University of Oregon

The "values-in-action" (VIA) framework targets at 24 universally recognized character strengths that cluster under six human virtues. The psychometric quality of the current 252-item version of the corresponding IPIP-VIA questionnaire appears questionable (blurred factor structures; low content validity), and the cross-cultural comparability of the questionnaire can be debated. Further, no fully balanced assessment of strengths, especially no short form is available. To remedy these limitations, we developed a considerably shorter, more content-valid measure for social surveys - on the basis of IPIP items suitable for testing cross-cultural equivalence. Despite ambiguity regarding the reflective vs formative nature of each strength, according to exploratory and confirmatory factor analyses on a U.S. community sample (N≈700), the 24 revised scales with balanced item wordings present as an equal number of factors, and the measurement models achieve good model fit. Cross-validating these results, we present an analysis of representative online-samples from the U.K. (N≈2x500) and Germany (N≈2x500), underscoring the quality of the 24 IPIP-VIA-R scales and allowing for testing cross-cultural measurement invariance. We used, and recommend, the TRAPD approach for translating and adapting English items to other languages to achieve high comparability of the IPIP-VIA-R. The German version serves as a reference for content-valid, economic, reliable assessment of 24 character strenghts.

# Applying the Bass-Ackwards Approach on the IPIP-VIA-R Inventory to Establish the Higher-order Structure of Peterson and Seligman's 24 Character Strengths

Partsch, Melanie Viola<sup>1</sup>; Bluemke, Matthias<sup>1</sup>; Lechner, Clemens<sup>1</sup>; Saucier, Gerard<sup>2</sup>

<sup>1</sup> GESIS – Leipzig Institute for the Social Sciences, <sup>2</sup> University of Oregon

"Good character" in the values-in-action approach (VIA) covers cross-culturally valued traits and can be measured based on 24 character strengths identified by Peterson and Seligman (2004). However, findings on their higher-order structure, and thus on more abstract levels to suitably describe "good character" on, are inconsistent, presumably for the following reasons: First, existing scales for measuring character strengths encompass many items with questionable content validity and item wording. Second, sample quality and analytical procedures vary considerably across studies. We remedy these shortcomings by (1) basing our analysis on the recently developed IPIP-VIA-R, which assesses the 24 character strengths with unprecedented content validity, (2) using heterogeneous quota samples from Germany and the UK, and (3) applying Goldberg's Bass-Ackwards method, which is uniquely suited to unfold hierarchical structures and to compare higher-order levels in terms of interpretability within and across countries. Using Horn's parallel analysis, we describe which higher-order levels encompass meaningful dimensions. Using Tucker's coefficient of congruence (phi), we indicate which higher-order levels encompass cross-culturally valid dimensions. Establishing the higher-order structure of the 24 character strengths paves the way for developing higher bandwidth measures of "good character" with rather economical scales.

### **Comparable Measurement of Religiosity Across Different Religious Groups**

Groskurth, Katharina; Bluemke, Matthias

GESIS – Leipzig Institute for the Social Sciences

Religiosity is an essential part of human culture. However, despite being one of the prime markers for strong cultural differences, the comparability of data on religious beliefs collected across different cultures and countries can be severely hampered. The dissimilarity of religious world views so far prevented relevant comparisons of mean and covariance structures in cross-cultural research. It is fair to say that item bias is not only highly likely, but often self-evident. The Supernatural Belief Scale (SBS-6; Jong & Halberstadt, 2016) was recently invented to address the measurement of religious beliefs from an etic perspective, while allowing adaptations from an emic perspective - without giving up the functional equivalence of the items. Even without cultural adaptations, it shows better levels of measurement equivalence, reliability, and validity across religious groups than a more commonly used and similar scale, the supernatural belief scale of the International Social Survey Programme (ISSP SBS). Findings for the SBS-6 are robust even when looking at and disentangling psychometric properties by countries of origin. The implications for cross-cultural comparisons in a domain that is difficult to analyze quantitatively will be discussed.

# Losing "Leselust": Can We Actually Measure (and Explain) the Developmental Trajectory of Reading Interest During Adolescence?

Miyamoto, Ai; Lechner, Clemens

GESIS – Leipzig Institute for the Social Sciences

In line with psychological theories, throughout the secondary schooling, adolescents generally lose interest in reading, or so-called "Leselust". However, there is still a lack of longitudinal studies investigating the developmental change in Leselust over an extended period of time. The aim of the present study is 1) to test whether Leselust is a measurement invariant construct across multiple occasions of measurements, 2) to examine developmental change in Leselust over a five-year period, and 3) to explain the potential loss of Leselust by considering both time-variant (e.g., school tracks, gender, and SES) and time-invariant (e.g., class environment) factors. The German National Educational Panel Study (NEPS) Starting Cohort 3 (SC3) provides a large-scale representative sample of secondary school children with a measure of Leselust across six waves over a five-year period from Grades 5 to 10. Using the latent CFA model, our results confirmed the strict measurement invariance of Leselust across six occasions of measurements from Grades 5 to 10. Moreover, our analyses of a latent growth curve model revealed constant and significant declines in Leselust over a five-year period. Finally, some of our time-variant and time- invariant factors partially explained the observed developmental declines in Leselust.

# Assessing cognitive bias: Psychometric evaluation of tasks used to assess individual biases in affective information processing

TIME 11:30 - 13:00

LOCATION Workshop-Room 2 (WS2)

CHAIR Ulrike Basten, Goethe-Universität Frankfurt

Recent years have seen a growing interest in the suitability of cognitive-experimental tasks for the assessment of individual cognitive biases in affective information processing. The seemingly long-established link between cognitive biases and individual differences in personality and psychopathology is called into question by the fact that tasks traditionally used to assess bias show unacceptably low reliability. As a consequence, there is strong demand for improvement and innovation in the assessment of individual biases. In this symposium, we present both traditional approaches and newly-developed tasks used to assess biases in the domains of attention, interpretation, and expectancy. For all tasks, the focus is on the evaluation

of the reliability and validity of the resulting bias measures. We report estimates of internal consistency and test-retest reliability. Besides novel task designs, a special focus will be on the possibility to calculate more reliable alternative indices of bias for existing tasks. Convergent validity is reported for different tasks used to assess the same type of bias. Here, a focus will be on the convergence of multiple indicators of bias at the levels of response behaviour, eye gaze, peripheral physiology, and brain activity. Finally, all talks will consider estimates of external validity towards self-reported mood, personality, and psychopathology. Our symposium provides a synopsis of current evidence on the psychometric quality of experimental tasks used to assess cognitive bias – the improvement of which is an important requirement for the use of bias measures in basic research as well as personalised treatment in prevention and therapy.

### Attention Bias: Is visual search more reliable than visual probe?

Mayer, Rebecca A.; Heide, Eva L.; Fiebach, Christian J.; Basten, Ulrike

Goethe-Universität Frankfurt

A bias in the attention towards affective information of positive versus negative valence represents a popular candidate for a cognitive mechanism underlying the aetiology and maintenance of affective disorders. While in theory this idea is appealing, empirical research on attention bias suffers from the fact that the task most frequently used to assess attention bias, i.e., the visual probe task, shows very poor reliability. Visual search has been suggested as a possibly more reliable alternative. Here, we report a psychometric evaluation of a visual search task with photographs of human faces. At two measurements approximately 2 weeks apart, 102 participants searched for an emotional face (happy versus angry) among neutral faces. Set size varied between 2 and 4. As measure of attention bias, we calculated the difference in mean response times for the search of happy versus angry faces. Internal consistency (mean of 5000 split-half correlations) ranged from .09 to .25 for the two set sizes and measurements. Test-retest reliability (interclass correlations) ranged from .16 to .17 for the two set sizes. The current findings suggest that - contrary to the hopes expressed in some reviews on the assessment of attention bias - a response time difference-based bias score from the visual search task does not possess acceptable reliability. Future research must clarify whether this conclusion can be generalised to visual search tasks with different design (e.g., larger stimulus matrices) and other response measures (e.g., eye gaze).

# Tackling the problem of unreliable attentional bias measurements: Considering its temporal dynamics might be one possible solution Schäfer, Judith

Technische Universität Dresden

After more than three decades of intensive research investigating attentional bias and its association with other psychological processes and the development and maintenance of psychopathology the research area struggles with a reliability crisis of its assessment. After reviewing several possible solutions that have been discussed in the literature the talk focuses on the idea to consider the temporal dynamics of attentional bias in its computation and thus, enhance their reliability (e.g., Zvielli et al., 2015). Specifically, Bernstein et al. proposed that rather than understanding attentional bias as a trait-like phenomenon that is stable over time attentional bias may be better characterized by its temporal fluctuations from moment to moment, i.e., attention towards the motivational salient cue might be followed by attentional bias away from the target stimulus and so on. We tested in two studies the role of dysregulated attention in the development and maintenance of posttraumatic stress disorder symptomatology (PTS; Schäfer et al., 2016; Schäfer et al., 2018) using traditional aggregated mean biases and trial-level bias scores. In both studies, we found significantly higher levels of reliability in trial-level bias scores compared to traditional aggregated mean biases. Moreover, in both studies, we found no associations between traditional aggregated mean biases and PTS. However, we found associations between temporal dynamics of attentional bias and PTS. Findings may mean that temporal dynamics of attentional bias to emotional stimuli may play a pivotal role in the development and maintenance of PTSD.

# Interpretation Bias: Comparing psychometric properties of an experimental measure and self-report

Basten, Ulrike; Mayer, Rebecca A.; Drake, Philine L.; Fiebach, Christian J.

Goethe-Universität Frankfurt

In the past, individual biases in the interpretation of ambiguous affective information have been assessed with different diagnostic tasks, which have often been applied without an evaluation of their psychometric properties. Here, we compare two types of measures, an experimental and a selfreport measure, with respect to their reliability and validity. We focus on the Ambiguous-Cue-Task, an experimental paradigm for the assessment of interpretation bias that has been adapted from animal research, where it is a well-established standard for the study of cognitive bias in rodents and non-human mammals. We compare this experimental measure to a scenario-based self-report that has previously been used to assess interpretation bias in humans. In two samples of 54 and 65 participants, both measures showed acceptable to good levels of internal consistency. However, the self-report showed higher test-retest stability. Notably, the two measures assumed to reflect interpretation bias were not significantly correlated. Furthermore, while the self-report measure of bias was significantly related to self-reported personality traits of positive and negative affect, the experimental measure did not show replicable correlations with self-reported personality traits or states. These findings highlight a major problem of the currently available methods for the assessment of interpretation bias, i.e., that different measures assumed to reflect the same type of bias do not show convergent validity. Furthermore, the fact that the experimental measure of bias had little to do with self-reported personality speaks either against the diagnostic task or against the theoretical assumption of an association of cognitive bias with personality.

### Different measures of optimism-attention bias interactions: Do they converge?

Aue, Tatjana; Kress, Laura; Bristle, Mirko; Schuepbach, Laurent

Universität Bern

Positive biases in attention have been linked with beneficial health outcomes and well-being. The same is true for positive biases in expectancies (e.g., optimism bias). Only few studies, to date, have examined causal influences between the two. Moreover, cognitive biases have been assessed with various measures from the behavioral and (more recently) the psychophysiological domain. Little is known, however, to what extent these different measures capture the same underlying cognitive processes. The current presentation, therefore, investigates expectancy influences on attention bias and addresses the convergence of bias estimates identified at the levels of behavioural responding (i.e., reaction times, eye gaze), peripheral physiology, and brain activity. The association of the different bias estimates with personality and mood will also be highlighted. Demonstrating an interplay between cognitive biases, on the one hand, and more profound knowledge on the degree of convergence between different measures used to index these biases, on the other hand, may advance the identification of key processes at the basis of mental health.

# The power of place: Studying the geographical variation of personality traits offers new insights for important psychological phenomena

TIME 11:30 – 13:00

LOCATION Workshop-Room 3 (WS3)

CHAIRS Tobias Ebert, Universität Mannheim

Friedrich M. Götz, University of Cambridge

Manfred Schmitt, Universität Koblenz Landau

Psychological traits vary between geographical regions, but what can personality psychologists learn from studying this geographical variation? The research showcased in this symposium provides answers by examining antecedents and consequences of geographical personality trait differences. The first project uses machine-learning techniques to show a link between geographical topography and personality trait levels in the US. The second study employs German SOEP data to show that the place of residence is crucially related to a person's loneliness. The third presentation uses data from 381 metropolitan areas to show that city-level personality predicts the rise of Uber and AirBnb in the US. The fourth study introduces a new large-scale dataset to show how regional differences in courage help to explain the striking pattern in US regions' suicide rates. The fifth project uses survey data from the US and the UK to show that adverse consequences of obesity are less severe in areas with high obesity prevalence. Together, the five projects use big data (total N > 6.8 Mio.) from various sources (online studies, administrative data, survey data) and employ diverse methodological approaches (machine learning, instrumental variables, multilevel modeling). In concert, we advocate that looking through a geographical lens offers new insights for the research of important psychological phenomena—an idea that will be critically reviewed and integrated by our discussant Manfred Schmitt.

### Association of mountainousness and personality in a large American sample

Stieger, Stefan<sup>1</sup>; Götz, Friedrich M.<sup>2</sup>; Rentfrow, Peter J.<sup>2</sup>; Gosling, Samuel D.<sup>3</sup>; Potter, Jedd<sup>4</sup>

<sup>1</sup> University of Health Sciences, <sup>2</sup> University of Cambridge, <sup>3</sup> University of Texas at Austin & University of Melbourne, <sup>4</sup> Atof Inc.

There is ample evidence that personality varies across places, but less is known about why that happens. Conducting the first large-scale study (N = 3,387,014) to examine tangible features of people's living environments in relation to personality, we explored the link of mountainous areas with inhabitants' Big Five traits. A measure of mountainousness was developed based on the standard deviation of elevation in a predefined radius from the centroid of participants' ZIP code of residence. Employing multilevel modelling, we found that mountainousness was negatively associated with extraversion (beta = -.006), neuroticism (beta = -.013), and conscientiousness (beta = -.007) but positively associated with openness to experience (beta = .034). Conditional random forest machine learning techniques identified mountainousness as a meaningful predictor, despite very small effect sizes. The observed pattern is in line with the voluntary settlement hypothesis and the ethos of independence along many mountainous areas in the US that are former frontier regions. Additional analyses indicated that mountainousness of the broader (50-mile radius) rather than more proximate living environment (20-mile radius) has a larger association with personality. To sum up, the present results shed new light on the role of ecology in personality formation by demonstrating a robust link between mountainousness and personality using a large sample with a fine-grained geographical resolution.

### Place matters: Regional Ioneliness variation in Germany

Bücker, Susanne<sup>1</sup>; Ebert, Tobias<sup>2</sup>; Götz, Friedrich M.4; Luhmann, Maike<sup>1</sup>

<sup>1</sup> Ruhr-Universität Bochum, <sup>2</sup> Universität Mannheim, <sup>3</sup> Universität Mannheim, <sup>4</sup> University of Cambridge

Due to its serious negative consequences, loneliness has become an increasingly important topic in the political debate. Thus, aggregate-level data on the distribution of loneliness is needed to inform policy decisions. For this purpose, the current study takes a novel approach to studying loneliness and its correlates. Unlike previous studies, which typically examine individual level predictors of loneliness, we extended this perspective by analyzing correlates of loneliness at the level of spatial planning regions within Germany. Using a nationally representative sample of over 25,000 participants, this is the first study that mapped the geographical distributions of loneliness across Germany. Additionally, we examined the associations of loneliness with important political, economic, social, and health outcomes. Our results revealed distinct geographical clusters, with neighboring regions displaying similar characteristics. One striking finding was that loneliness levels

were increased in the Eastern part of Germany. In metropolitan regions such as Hamburg, Cologne-Bonn, Stuttgart, and Munich, loneliness levels were particularly low. Macro-level predictors (e.g., the distance to the next regional center and the regional wealth) predicted individual level loneliness beyond various individual level economic, social, and health indicators. We discuss implications of our results against the background of an aging German society.

# Where the future happens first: Regional personality differences and the rise of the sharing economy in American cities

**Ebert, Tobias¹**; Obschonka, Martin²; Mewes, Lars³; Rentfrow, Peter J.⁴; Gosling, Samuel D.⁵; Potter leff<sup>6</sup>

<sup>1</sup> Universität Mannheim, <sup>2</sup> Queensland University of Technology, <sup>3</sup> Leibniz Universität Hannover, <sup>4</sup> University of Cambridge, <sup>5</sup> University of Texas at Austin and University of Melbourne, <sup>6</sup>Atof Inc.

The rise of the sharing economy – an economy in which private individuals share assets or services – is arguably the most significant economic development of the past 10 years. With companies like Uber and AirBnB at its forefront, the sharing economy reshapes not only industrial landscapes, but also more broadly how our society organizes the consumption of goods. In the present research, we show a) that the spread of Uber and Airbnb varies greatly across cities and b) that cultural differences between cities are essential to understand this variation. To capture cultural differences, we aggregated individual-level Big Five personality traits of 3,133,421 US residents to the city level (381 Metropolitan Areas). Furthermore, we operationalized the spread of Uber and AirBnb via annual tax record data, allowing us to track the rise of sharing economy in a quasi-experimental setting. In two studies, we provide causal evidence that the cities' culture of openness predicts how quickly Uber and Airbnb gain traction. Importantly, city openness not only explained variance beyond economic control variables, but even emerged as the single strongest predictor of the rise of sharing economy. Our findings highlight the merits of interdisciplinary research and demonstrate how psychological data and methods can crucially help understanding important real-life phenomena.

# In the home of the brave, the courageous die young: On the relationship between regional courage and suicide rates

Götz, Friedrich M.<sup>1</sup>; Ebert, Tobias<sup>2</sup>; Obschonka, Martin<sup>3</sup>; Rentfrow, Peter J.<sup>1</sup>

<sup>1</sup> University of Cambridge, <sup>2</sup> Universität Mannheim, <sup>3</sup> Queensland University of Technology

Suicide is a global burden that is especially severe in the US where it kills 123 people a day. Here, for 150 years a pattern of disproportionately high suicide rates in the Mountain West has puzzled researchers, unable to explain it. Bridging the gap, we use a new large-scale dataset (N = 512,127) to link heightened regional courage to elevated suicide rates. This relationship also holds up when tested against all alternative explanatory variables suggested before. Conceptually, we argue that perseverance despite fear makes people more likely to realize all sorts of goal, including harmful ones such as suicide. Consistent with the frontier settlement literature and the ethos of independence, we posit that frontier regions such as the Mountain West, where both, suicide rates and courage levels are high, originally attracted courageous, non-conformist settlers and that these founder effects have been perpetuated through epigenetics and social norms until today. Corroborating this claim, we apply date of statehood, a common proxy for historical frontier status, as instrumental variable and provide empirical support that it may have caused enhanced levels of regional courage which in turn predict increased suicide rates. Taken together, we apply a psychogeographical lens to demonstrate how regional personality differences can be traced back to historical conditions and help to inform the study of ill-understood yet crucial contemporary issues such as the prevalence of suicide.

# The burden of obesity is heavy—but in some places less than in others: A person-environment fit perspective on the consequences of obesity

**Nehrlich, Andreas¹**; Ebert, Tobias²; Berkessel, Jana²; Gebauer, Jochen E.²,³; Joshanloo⁴, Mohsen; Rentfrow, Peter J.⁵

<sup>1</sup> Universität Koblenz Landau, <sup>2</sup> Universität Mannheim, <sup>3</sup> University of Copenhagen, <sup>4</sup> Keimyung University, <sup>5</sup> University of Cambridge

Obesity has severe consequences for individuals—but is this true everywhere? We adopt a personenvironment fit perspective to test whether obese individuals suffer less severe consequences in certain sociocultural contexts. Specifically, we assume that obese individuals experience relatively better fit to their environment in contexts where many people are obese (i.e., contexts with high obesity prevalence). In those contexts, in turn, a better person-environment fit should help individuals attenuate the consequences of their own obesity. We tested this hypothesis across two countries (the US and UK) and three large-scale datasets (Gallup Daily Poll, N = 834,574; Behavioral Risk Factor Surveillance System, N = 1,955,723; BBC Big Personality Test, N = 122,925). Those datasets featured hundreds of sociocultural contexts (i.e., geographical regions) that varied greatly in their respective obesity prevalence (5%-45%). Replicating prior findings, obese individuals generally suffered severe consequences—they were more prone to singlehood, unemployment, and bad health. Critically, however, these differences between obese vs. non-obese individuals were reduced (sometimes eliminated even) in sociocultural contexts with high obesity prevalence. Accordingly, in support of our person-environment fit perspective, obese individuals suffer severe consequences in many contexts—but not everywhere. We discuss the implications of our results in times of a growing worldwide obesity epidemic.

## **Paper Session 8: Intelligence / Performance**

TIME 11:30 – 13:00

LOCATION Workshop-Room 4a (WS4a)

CHAIR Matthias Stadler, Ludwig-Maximilians-Universität

# Are g factor loadings associated with test variance? Evidence from WISC and WAIS standardization samples lan Groth

Universität Bonn

On psychometric grounds, it may at first appear plausible that the loading of a cognitive test on the general factor of intelligence increases with greater test variance (Jensen, 1998, p. 94; relating to group differences: Flynn, 2010). It could be inferred that test variance, as it displays the range of ability, is positively related to the subtests' g loadings within a battery of cognitive tests simply due to higher intercorrelations among the tests. This a priori assumption was tested on the U.S. standardization samples of all editions of the Wechsler Intelligence Scale for Children (WISC - WISC-V) as well as all editions of the Wechsler Adult Intelligence Scale (WAIS - WAIS-IV). Correlations between the standard deviations of the subtests and their g loadings were obtained using the method of correlated vectors. Each subsample (age band) within a standardization sample yielded one data point. A total of 85 data points (N = 16 730) from the WISC and the WAIS standardization samples entered into two separate meta-analyses. In contrast to the hypothesized link between the column vector of the standard deviations and the column vector of the g loadings, both metaanalyses showed near-zero correlations. It is concluded that the magnitude of g loadings might not be affected by test variance (hence range of ability). A potential fallacy regarding this association is offered: Whereas a decrease in variance ("range restriction") evidently leads to reduced correlations, the reverse – greater variance is generally paralleled with increased correlations – might sometimes be misleading.

# Investigating the validity of speed in response time modeling with figural matrices and number series

### Anna-Lena Jobmann

Deutsche Gesellschaft für Personalwesen e.V.

Response Time Modeling (RTM) has recently addressed increased attention for computerized cognitive tests, with van der Linden's (2007) hierarchical model being the most popular. RTM simultaneously incorporates accuracy and speed of responses on the first level, whereas on the second level joint distributions of person and item parameters are modeled. Two of the open questions in this research area have been of main interest for the present study. Previous studies reported different directions of correlations between speed and ability on the higher level of the model. The direction is hypothesized to vary depending on the processes (automatic vs. nonautomatic) necessary for item response. Accurate responses are hypothesized to be associated with longer response time for items requiring non-automatic processes, resulting in a negative correlation between speed and ability. However, empirical evidence is ambivalent. The present study aims to add evidence for items requiring non-automatic processes. Moreover, the validity of the speed of respondents has only been addressed in few studies in the last years. Therefore, convergent validity of ability and speed is investigated. A total of 961 and 997 individuals responded to 30 figural matrices and 30 number series. Correlations between speed and ability were moderately negative for figural matrices and highly positive for number series, providing only some evidence that for controlled reasoning tasks more able respondents take more time. Moreover, correlations to a separate reasoning test battery as well as a speed test provided evidence for convergent validity, but also raised questions regarding the validity of speed.

### **Predicting Stock Market Performance: The Influence of Gender and Personality**

Plieger, Thomas; Grünhage, Thomas; Reuter, Martin

Unversitäti Bonn

Gender, but also personality traits have been identified to influence risk proneness in the context of financial decisions. The aim of our study was to identify relevant trading behaviors relating personal characteristics to trading success. N=108 Caucasians took part in a three-week stock market simulation paradigm in which they traded with shares of eight fictional companies differing in issue price, volatility, and outcome. Participants also filled in questionnaires measuring personality, risk-taking behavior, and life stress. Our model showed that being male and scoring high on self-directedness led to more financial risk behavior that in turn positively influenced the success in the stock market simulation. The total model explained 39% of variance leaving room for other factors influencing trading behavior. Future studies should try to enrich our model to get a more accurate impression of the associations between individual characteristics and financially successful behavior in context of stock trading.

# Taking a closer look: An exploratory analysis of successful and unsuccessful strategy use in complex problems

Stadler, Matthias; Fischer, Frank; Greiff, Samuel

LMU München

Influencing students' educational achievements first requires understanding the underlying processes that lead to variation in students' performance. Researchers are therefore increasingly interested in analyzing the differences in behavior displayed in educational assessments rather than merely assessing their outcomes. Such analyses provide valuable information on the differences between successful and unsuccessful students and help to design appropriate interventions. Complex problem solving (CPS) tasks have proven to provide particularly rich process data as they

allow for a multitude of behaviors several of which can lead to a successful performance. So far, this data has often been analyzed on a rather aggregated level looking at an average number of actions or predefined strategies with only a few articles investigating the specific actions performed. In this paper, we report the results of an exploratory analysis of CPS log-files that is aimed at distinguishing between students that applied the correct strategy to a problem but failed to solve it and those applying the strategy successfully. In that, the sequence of behavior displayed is reduced to interpretable parts (n-grams) that allow searching for meaningful differences between the two groups of students. This level of analysis allows finding previously undefined or unknown patterns within the data and increases our understanding of the processes underlying successful problem-solving behavior even further.

## **Paper Session 9: Constructs**

TIME 11:30 – 13:00

LOCATION Workshop-Room 4b (WS4b)

CHAIR Corinna Kührt, Technische Universität Dresden

## Personal Map - An Alternative Diagnostic Tool Avigdor, Rimmer

Western Galilee College

Personal Map: A new conceptual framework for Assessment

Coaching developed as an alternative to counselling, but coaching lacks a conceptual basis. We propose to develop the concept of Life Space (Lewin 1938) as a basis, and to apply scale-free networks (Barabasi 2002) as a complementary tool. In a nutshell, we ask individuals to relate to a sheet of paper as representing their Life Space, and to depict major people or events in their life as points on the paper. Next the person is asked to draw lines between each pair of points he sees as related. Thus he is creating his personal graph, and this is the core of his personal map. The personal map is the beginning of the Coaching process. We observe and analyze the map and look for hubs, points where many lines are connected to. The discrimination between hubs and ordinary points is related to different type of behaviour. Ordinary points behave according to the Normal distribution, while hubs behave along the Pareto distribution (Barabasi 2010). A major change in the individual life is suggested by approaching the hub, while changes of ordinary points are integrated within person's life.

# Construction and evaluation of a group test of phonological awareness in German primary school children

Bergström, Kristin; Konerding, Maritn; Lachmann, Thomas; Klatte, Maria

Universität Kaiserslautern

Intact phonological processing is important for the successful acquisition of literacy skills. One of the most important components of phonological processing is phonological awareness. In Germany, there are a number of standardized and norm-referenced tests measuring phonological awareness, which can be administered in groups or individually. However, there is no German group test that differentiates up to third grade. Therefore, such a test ("Kaiserslauterer Gruppentest zur Lautbewusstheit", KaLaube) was constructed. Based on studies on the dimensionality of phonological awareness, the KaLaube consists of four subtests for phoneme analysis, phoneme comparison, phoneme deletion and phoneme substitution. All subtests are based on pictorial nouns, which are introduced during the instruction. Unlike existing tests of phonological awareness for Germanspeaking children, the KaLaube was designed as a speed test, as processing speed is considered to be an indicator of the automatization of the phonological processes required for task processing. In several studies with grade 1 to 3 primary school children, the criterion, discriminant and convergent

validity and retest reliability were examined. Medium to high correlations of the KaLaube test values with other phonological awareness tests, as well as with reading and spelling performance, indicate a satisfactory to good convergent and criterion validity. The lower correlations with rapid naming and non-significant correlations with intelligence confirm the discriminant validity. In addition, our studies confirmed high retest reliability (rtt = .82). Overall, the results point to the appropriateness of the KaLaube for the time-economic assessment of phonological awareness in primary school children.

# The PSS structure revisited: A meta-analytic investigation of the dimensionality of the Perceived Stress Scale.

Kasten, Nadine<sup>1</sup>; Wunsch, Kathrin<sup>2</sup>

<sup>1</sup> Universität Trier, <sup>2</sup> Karlsruher Institut für Technologie

The 10-item Perceived Stress Scale (PSS-10; Cohen, Kamarck, & Mermelstein, 1983) is a commonly used and well-established psychological questionnaire to measure an individuals' perception of stress. Although originally developed to measure a unidimensional construct, empirical studies identified different factor structures. For example, exploratory factor analyses typically reveal a twofactor structure, separating the negatively worded items (e.g., "How often have you felt nervous and stressed?") from the positively worded items (e.g., "How often have you felt that you were on top of the things?"). In addition to the unresolved question of the factor structure, there is only few information on the robustness of the internal structure of the PSS-10 across, for example, different application contexts and sample characteristics. In light of the ongoing discussion, the present study evaluates the nature and the generalizability of the PSS-10 factor structure by means of a metaanalytic structural equation modeling approach. Overall, inter-item correlations matrices from 52 independent samples were pooled and used as an input for confirmatory factor analyses. In contrast to the originally proposed conceptualization of the PSS-10, a unidimensional model exhibited inferior fit. Although a correlated two-factor model demonstrated a notably better fit to the data, a bifactor model including a general factor as well as two specific factors (i.e. stress and coping) represented the internal structure of the PSS best.

### Investigating the construct validity of a Personality Understanding test

Pisters, Maike; Schulze, Ralf

Universität Wuppertal

Personality Understanding (PU) is conceptualized as the ability to make correct inferences about other people's personalities. Most currently available assessment approaches suffer from challenges related to the criteria used to determine whether the inferences are right or wrong. To address this scoring problem, a new maximum performance test is constructed using the Acquisition-Application (AcquA) Test Design, which allows for an unequivocal, logically derived scoring of the test taker's responses. AcquA tasks for the assessment of PU consist of two phases: In the first phase, the test taker learns how a target person reacts to certain events, and in the second phase the acquired knowledge must be applied to predict the target person's behavior in a new situation. AcquA-PU tasks have already been successfully constructed using a 3D simulation software and in a previous study PU was separated from the conceptually similar ability Emotional Understanding, which was also assessed with the AcquA Test Design. The present study aimed to provide further evidence of construct validity of the AcquA-PU tasks. A total of 205 participants completed six AcquA-PU tasks, self-report personality inventories, along with verbal, numerical, and figural reasoning tasks. The relationship between PU and reasoning as well as PU and personality was analyzed. While a unidimensional CFA-model for PU showed a very good fit, the relationship between PU and reasoning was lower than expected. Based on the results further conclusions concerning the construct validity of the AcquA-PU tasks and the assessment of the ability PU in general can be drawn.

### Dispositional Individual Differences in Effort Investment: Exploring the Core Construct

Kührt, Corinna; Strobel, Alexander

Technische Universität Dresden

Individuals dispositionally differ in their willingness to invest effort in obtaining their goals and in their tendency to show effort discounting. Indeed, self-reported Need for Cognition (NFC) and Self-Control (SC) correlate with behavioral measures of effort discounting or demand avoidance, respectively. Given that NFC and SC are moderately related, the question arises whether they share some common construct core being theoretically embedded within a broader model. Thus, the present study aims at specifying a core construct of Effort Investment, i.e., for self-reported dispositional differences in the willingness and tendency to exert effortful control. We conducted an online-study (N = 613, 70% female, age mean  $\pm$  SD: 29.1  $\pm$  10.8 years) with several questionnaires related to cognitive motivation and effort-investment including the NFC and SC scales. We found substantial correlations between the assessed traits pointing to a core construct of Effort Investment. Furthermore, we could show that the relationship of NFC and SC is specifically mediated via an aspect that can be conceptualized as goal-directedness. These findings have been replicated in a separate sample (N = 244, 72% female, age mean  $\pm$  SD: 23.4  $\pm$  4.3 years). Taken together, our results extend our current knowledge on traits related to Effort Investment and provide a basis for further research on the role of dispositional individual differences in goal-directed behavior.

# **State of the Art Session: Moral Courage**

TIME 14:00 – 15:30

LOCATION Main Hall (MH)

CHAIRS Anna Baumert, Max Planck Institute for Research on Collective Goods and TUM School of

Education

Mengyao Li, Max Planck Institute for Research on Collective Goods

Davide dal Cason, Université libre de Bruxelles Linda Skitka, University of Illinois at Chicago

Moral courage refers to the readiness to stand up in defense of one's moral principles despite the anticipation of substantial costs to the self. Despite high social desirability, systematic observations indicate that moral courage is quite rare. Related phenomena have been investigated, partially in isolation, in social, organizational, and personality psychology. We first discuss different conceptualizations of moral courage and suggest ways to reconcile apparent disagreements. Fundamental questions are for example whether moral courage should be understood as an observable behavior or a (more or less stable) latent disposition; and whether morally courageous behavior is necessarily prosocial or can take antisocial and sometimes very harmful forms. Second, based on an integrative definition, we give an overview of the broad range of social phenomena that it covers, such as defending against bullying; intervention against violent assaults; costly third-party punishment; dissent and whistleblowing; and collective action. Across interpersonal, intragroup and intergroup contexts, we highlight commonalities and differences in the kinds of processes potentially driving morally courageous behaviors. Third, we emphasize methodological challenges, urging for a multimethod approach to the study of moral courage. We exemplify such an approach with a set of studies on the role of anger in fueling moral courage. Finally, we identify critical research questions in two directions, one with regard to consistency, stability, and changeability of moral courage and its status as a potentially unique character trait; the other with regard to the complex interplay of psychological processes in determining morally courageous behavior in concrete situations.

# Personality-Relationship Transactions Beyond Traits: A Focus on Underlying Processes

TIME 14:00 – 15:30

LOCATION Workshop-Room 1 (WS1)

CHAIRS Christine Finn, FSU Jena

Janina Larissa Bühler, University of Basel

Individual characteristics shape a person's social relationships and are shaped by those very ties. While numerous studies addressed personality-relationship transactions for the Big Five traits, less is known about individual characteristics beyond dispositional traits. In addition, there is still a lack of studies addressing the processes underlying these associations. In the present symposium, we seek to complement the current research and present five innovative studies that integrate different types of social ties and different layers of personality with the exploration of mediating processes by using advanced methods for the analysis of complex longitudinal and diary data. In their contribution, Zimmermann et al. explore the quality of international contacts in a sample of student sojourners as a mechanism underlying personality change. Richter and Finn focus on the interplay between self-esteem and negative relationship outcomes in romantic relationships, while Wünsche et al. examine how daily relationship processes mediate transactions between interpersonal vulnerabilities and satisfaction in couples. Finn et al. investigate hostility as a relationship process underlying the transactions between emotional insecurity and satisfaction in continuing and dissolving romantic unions. Finally, Hoppler and Nikitin examine whether the effects of extraversion and emotional stability on subjective well-being depend on one's closeness to the interaction partner.

# What Drives the Development of Multicultural Effectiveness Amongst (In)Experienced Sojourners?

Zimmermann, Julia; Greischel, Henriette; Jonkmann, Kathrin

FernUniversität in Hagen

International student mobility (ISM) is an important life event in young adulthood. Whilst previous research provided evidence for the effects of ISM on the development of basic personality traits, the present study explored ISM socialization effects with respect to individuals' multicultural effectiveness, i.e., cultural intelligence, intergroup anxiety, and multicultural self-efficacy. Moreover, we were interested in the mechanisms that drive ISM effects on development. Hence, we assessed how the quality of different contact experiences affect the development of multicultural effectiveness amongst student sojourners. To address these objectives, we used an extended control-group design (N = 3,070) with three study groups (control students without mobility plans, present sojourners, and a waiting group of future sojourners). Analyses using moderated latent change models showed positive effects of ISM on the development in all three indicators of multicultural effectiveness. Also, higher quality of host country as well as international contacts (i.e., more equal, cooperative, pleasant, intimate, and voluntary contacts) revealed positive effects on development. Contact effects on development did not differ between students with and without previous international mobility experiences. Theoretical implications for the understanding of adaptive development in a globalized world as well as practical inferences for the promotion and implementation of ISM programs are discussed.

# The Dynamics of Self-Esteem and Conflict in Romantic Relationships: Evidence From Pairfam Richter, Julia¹; Finn, Christine¹

<sup>1</sup> Universität Bielefeld, <sup>2</sup> Universität Jena

Self-esteem has been shown to be both predictive of and predicted by characteristics of romantic relationships. To date, most studies on the dynamics of self-esteem in romantic relationships have focused on positive relationship outcomes, such as relationship satisfaction. Yet, to embrace

relationship outcomes more comprehensively, it is essential to also investigate negative relationship outcomes, such as relationship conflict. To that aim, we examine the transactional and longitudinal interplay between self-esteem and relationship conflict in romantic couples. We consider multiple aspects of conflict, including the domains of conflict frequency as well as conflict styles and behavior. Our sample consists of individuals and their partners in stable female-male relationships from the German Family Panel (pairfam), whose self-esteem and relationship conflict were examined multiple times throughout a timespan of nine years (waves 1 to 9). Based on a dyadic extended bivariate latent change model, we will present level-level, level-change, and change-change correlations to test our assumption that self-esteem and conflict are negatively interrelated within individuals and between partners across time. We will discuss the results in terms of the self-broadcasting and sociometer perspectives to disentangle the interplay between self-esteem and conflict in couples.

# Zooming Into Couples' Everyday Lives: How Daily Relationship Processes and Their Variability Mediate Personality-Relationship Transactions in Couples

Wünsche, Jenna; Bühler, Janina Larissa; Weidmann, Rebekka; Burris, Robert Philip; Grob, Alexander To explore how personality-relationship transactions unfold in romantic relationships, this study employed a daily process perspective: Emotional, cognitive, and behavioral relationship processes (i.e., perceived responsiveness, positive expectations, self-disclosure) and their day-to-day variability were investigated in the transactional link between personality and relationship satisfaction. In terms of personality, we focused on three interpersonal vulnerabilities that have been identified as a risk factor for relational well-being (i.e., neuroticism, low self-esteem, insecure attachment). We analyzed data from 604 female-male couples aged 18 to 81 years who participated in a 2-week diary study with a follow-up assessment after 6 months. Findings from Actor-Partner Interdependence (Mediation) Models revealed that couple members with interpersonal vulnerabilities experienced lower levels of beneficial relationship processes over the 2-week period and showed higher day-to-day variability. However, only the level of these processes, not their variability, explained later relationship satisfaction. These mediational effects were also found in the reversed direction: Average levels of beneficial relationship processes, not their variability, explained the link between relationship satisfaction and later personality. We conclude that zooming into couples' everyday lives contributes to a better understanding of the mechanisms underlying personality-relationship transactions.

# Who's to blame? The mediating role of hostility for the longitudinal association between emotional insecurity and satisfaction in continuing and dissolving romantic relationships

Finn, Christine<sup>1</sup>; Neyer, Franz J.<sup>1</sup>; Walper, Sabine<sup>2</sup>

<sup>1</sup> Universität Jena, <sup>2</sup> Deutsches Jugendinstitut

Emotional insecurity in the partnership describes the fear that the romantic partner will not meet one's needs for closeness and that the partner's love will be lost. As this insecurity has been shown to affect relationship satisfaction and stability, the present study seeks to investigate processes that may underlie this effect. In particular, we focus on hostile interpretations of partner behaviors as a longitudinal mediator and explore (dis)similarities of processes in individuals who stay with their partner and those who break up. We assume that higher insecurity may increase the tendency for hostile interpretations that, in turn, may decrease relationship satisfaction. In addition, we expect stronger associations between the variables in dissolving unions. Such differences may indicate the more negative consequences of insecurity in relationships destined to break up. We use longitudinal data from annual assessments across nine years from 3,221 individuals in continuing (N = 1,704) and dissolving (N = 1,517) romantic unions from the German Family Panel. Based on continuous time models, we will present findings on the temporal associations between the variables as well as the mediating role of hostility for the link between emotional insecurity and relationship satisfaction in continuing and dissolving romantic unions. We will discuss the results in terms of different transactional processes in ongoing romantic relationships and those headed towards a separation.

### Are Personality Effects on Social Well-Being a Question of Relationship Closeness?

Hoppler, Sarah; Nikitin, Jana

University of Basel

The motivation to establish and maintain positive social relationships is a universal human drive. However, not all people are motivated to seek social relationships: People low in extraversion and emotional stability engage less in social interactions. Why is this the case? We argue that these people construe social interactions in terms of potential risks rather than potential chances. Therefore, they feel less comfortable in social interactions and avoid them. We further argue that this is particularly true in interactions with peripheral social partners that are less predictable than interactions with close persons and allow more room for interpretations. We test these hypotheses in a diary study with N = 217 participants aged 18-81 years. Participants were asked eight times a day on three days to report their last social interaction including reports on the closeness of the interaction partner and participants' well-being. Extraversion and emotional stability were assessed prior to the diary phase in a laboratory session. We will present findings on trait-related differences in participants' subjective well-being in social interactions with close and peripheral social partners. In addition, we will explore whether differences in well-being relate to frequency of participants' interactions with close and peripheral social partners. We will discuss the results in terms of the importance to include context information when examining trait effects on social experiences.

## **Paper Session 4: Advanced Modeling**

TIME 14:00 – 15:30

LOCATION Workshop-Room 3 (WS3)

CHAIR Melanie Viola Partsch, GESIS - Leibniz Institute for the Social Sciences

# Individual, situational, and cultural correlates of acquiescent responding: Towards a unified conceptual framework

Partsch, Melanie Viola<sup>1</sup>; Lechner, Clemens<sup>1</sup>; Danner, Daniel<sup>2</sup>; Rammstedt, Beatrice<sup>1</sup>

<sup>1</sup> GESIS - Leibniz Institute for the Social Sciences, <sup>2</sup> University of Applied Labour Studies

Acquiescence ('yea-saying') can seriously harm the validity of self-report questionnaire data. Towards a better understanding of why some individuals and groups acquiesce more strongly than others do, we developed a unified conceptual framework of acquiescent responding. Our framework posits that acquiescent responding is a joint function of respondent characteristics (e.g., age, education, values), situational/survey characteristics (e.g., interview privacy, respondents' interest), and cultural characteristics (e.g., socialnorms, economic development). The framework posits two putative mechanisms through which these characteristics may relate to acquiescence: cognitive processing capacities and deferential communication styles. Multilevel analyses using data from 60 heterogeneous countries from the World Values Survey (N = 90,347) support ourframework's proposition that acquiescence is a joint function of respondent, situational, and cultural characteristics. Acquiescence was higher among respondents who were older (over 55 years old), less educated, who valued deference (i.e., conformity and tradition), and, unexpectedly, were male. Interview privacy corresponded to lower acquiescence, but this association was small and vanished after including respondent characteristics. Unexpectedly, acquiescence was higher in interviewees who showed a stronger interest in the interview. Finally, acquiescence was considerably higher in countries with stronger social norms of deference. We discuss implications of these findings for the validity of research based on self-report data and delineate how our framework can guide future inquiries into acquiescent responding.

# Enhancing big data for the exploration of user personality characteristics of online music streaming services users

Fricke, Kai<sup>1</sup>; Wildfang, Swetlana<sup>2</sup>; Herzberg, Philipp Yorck<sup>1</sup>

<sup>1</sup>Helmut-Schmidt-Universität - Universität der Bundeswehr Hamburg, <sup>2</sup> EuroFH Hamburg

The collection of huge digital data sets on user behavior provides great opportunities to examine individual differences between these users. However, current research on big data seldom relates their results to personality characteristics, mostly because such data is either not collected, or not freely available for researchers. In our research, we examined methods to enhance available data with newly collected data in order to gain insights on the personality characteristics of users in big data sets. Specifically, we collected the music playback statistics and personality data of 300 users of the Spotify music streaming service, and used distribution matching to gain insights on the personality profiles of the over one million users reflected in the Million Song Dataset. Our results indicate that distribution matching is a viable tool to infer insights from small samples – which are typical in personality research – to large data sets, and is thus suitable to retrospectively enhance big data sets with more details on specific variables of interest.

# A latent class approach to the study of the social lives of older adults: Defining typologies and their associations with health

Kaiser, Till<sup>1</sup>; Hawkley, Louise<sup>2</sup>; Holt-Lunstad, Julianne<sup>3</sup>

<sup>1</sup> Ruhr-University Bochum, <sup>2</sup> University of Chicago, <sup>3</sup> Brigham Young University

Loneliness, social activity, marital status, and other aspects of social life have been associated with health outcomes and mortality, but these aspects are often examined in isolation or in combination with one or two other aspects. Social lives are more than the sum of their parts, however. We posited that loneliness, social networks, marital status, social engagement, and relationship quality would cohere in distinct ways in different groups of individuals, and that classes of individuals would exhibit differential associations with health outcomes. Our sample (N=2184) was taken from the first wave of the National Social Life, Health, and Aging Project (NSHAP), a population-based US panel study that assesses a wide range of social factors believed relevant to the health and well-being of older Americans. We used latent class analysis to identify and characterize clusters of older adults based on 11 social factors, including those named above. Using these data, we identify and characterize six classes and describe each along sociodemographic dimensions (age, gender, racial-ethnic group, household income, education, and employment status). Adjusting for sociodemographic characteristics, we found class differences in self-rated physical and mental health, depression, and functional limitations, further supporting the distinctions among the groups. The results of our exploratory study reveal the value of a data-driven approach to understanding the totality of people's social lives, and how these combine to affect health in older age.

# Modelling changes in course evaluations and student variables over time: a random-intercepts cross-lagged panel analysis

Karthaus, Christiane; Kutz, Janika; Weis, Susanne; Lischetzke, Tanja

Universität Koblenz-Landau

Lots of research already addressed the question of how much bias is involved in students' evaluation of teaching at higher education institutions (Fondel, Lischetzke, Weis, & Gollwitzer, 2015; Spooren, Brockx, & Mortelmans, 2013; Staufenbiel, 2000). However, mostly cross-sectional designs were applied so that correlations between students' individual variables and their ratings do not necessarily imply causal relations. The present study pursues the question if subject interest, sympathy towards the lecturer, and perceived adequacy of difficulty predict students' course evaluation over time or vice versa. The sample consisted of data from 49 lectures for beginners

including a total N= 4411 (across all lectures) and n1-n49= 16 - 656. At three measurement times, students answered questions about their sympathy for the lecturer, interest in the course's subject and perceived difficulty, beside with filling out the standard course evaluation instrument. For analysing a Random Intercept Cross-Lagged-Panel Model (RI-CLPM) was specified (Hamaker, Kuiper, & Grasman, 2015). First analyses for a subsample of 21 lectures showed significant effects for interest and overall grade between t2 and t3 on both crosspaths, while the stronger contribution to prediction was found of overall grade on interest. Between t1 and t2 sympathy predicts overall grade significantly and vice versa. Between t2 and t3 overall grade predicts sympathy significantly. For the perceived difficulty, no significant effects were found at all. In summary, the findings suggest that distortive influences from student variables cannot per se be assumed. By the time of the conference, the complete data set will have been analysed.

### **Age-Associated Changes in Dark-Personality**

Hartung, Johanna; Bader, Martina; Moshagen, Morten; Wilhelm, Oliver

Ulm Universität

The magnitude and robustness of the association between age and crime is the strongest and most consistent finding in developmental criminology. The age-crime hypothesis is best studied in a personality development context on data of individual subjects from the target population. Within this population dark personality traits such as psychopathy, spitefulness, moral disengagement, narcissism, and greed are face valid candidates for studying the prediction of criminal behavior. Additionally, several studies consistently show a relation between these traits and crime. The strong redundancy amongst dark personality traits clearly endorses an overarching common factor of dark personality (D-factor). In a very large age-heterogeneous sample we studied age-related structural changes in dark personality by using recently developed person- and item-sampling procedures (Local Structural Equation Modelling and Ant Colony Optimization respectively). The data on a variety of dark personality traits was collected using a Synthetic Aperture Personality Assessment design. After establishing a sound measurement model of dark-personality we study age-associated changes on the level of factor means and explore age-associated changes in factor structure. For investigating stability and chance capitalization of the analysis we use a study and replication sample (both samples > 75.000). We discuss validity of the age-crime hypothesis and perspectives of personality psychology to contribute to developmental criminology.

# **Paper Sesion 7: Assessment**

TIME 14:00 – 15:30

LOCATION Workshop-Room 4a (WS4a)

CHAIR Corinna Koschmeider, Karl-Franzens Universität Graz

### Turn the lights on - test fairness in common digital tests: status and outlook

Vetter, Marco<sup>1</sup>; Ortner, Tuulia<sup>2</sup>

<sup>1</sup> Schuhfried Austria, <sup>2</sup> Universität Salzburg

In recent years, the importance of test fairness for psychological assessments has increased considerably. For example, the American Psychological Association has highlighted fairness in their recent published standards for educational and psychological testing as one of the three foundations next to reliability and validity. This significance of test fairness reflects only slowly into the standards of German speaking countries. Whereas the DIN 33430 mentions test fairness only once under further quality criteria with no additional specification, the Austrian Standard Institute has integrated an additional chapter to test fairness in their latest review of the ÖNORM D 4000. Along with the APA standards the ÖNORM D 4000 recommends besides considering fairness in test development,

administration and interpretation that when a construct can be measured in different ways that are equal in their degree of construct representation and validity test users should consider evidence of subgroup differences in mean scores in deciding which test to use. This was the starting point for the present empirical explorative study examining mean differences in norm values of a large sample of common digital ability tests with reference to age, education and gender. Subgroup mean differences do not in and of themselves indicate lack of fairness, but should serve as a starting point to trigger further follow-up studies. Therefore, a CHC-grid arranges the tests on a stratum 2 level and hypothesis state possible influences: material, test presentation, time limits etc. Theoretical and practical implications are discussed.

### Nonverbal Assessment of Emotional Stability, Perceived Social Support, Achievement-Motivation, and Mood

Pröller, Franziska; Al-Dwaf, Nadja; Thomas, Joachim

KU-Eichstätt.Ingoldstadt

Young refugees are likely to face risk factors before and during their migration to Germany. In order to avoid language barriers, we developed a nonverbal questionnaire to examine some variables that are correlated to mental health and are relevant in school context. These variables are emotional stability, perceived social support, achievement-motivation, and mood. The questionnaire consists of picture-based items and is culturally-sensitive. The present validation is based on qualitative and quantitative research. It includes samples of adolescents and young adults with migration background or escape experience from various countries attending occupational schools in Germany. For the qualitative study, the pictures were presented to 20 persons per scale. The interviewees' perceptions of the pictures were explored using qualitative content-analysis. For the quantitative study, 219 migrants from 36 countries completed the computer-based questionnaire. Reliability and factor-structure are analysed by Cronbach's Alpha and confirmatory factor-analysis. The statements of the participants were in large part equivalent to the represented latent psychological variables. Moreover, a first quantitative analysis showed values of Cronbach's Alpha between .61 and .73 for all scales. The confirmatory factor analysis is being conducted. After the qualitative content-analysis, we derived implications for changes to improve items that are understood with little ambiguity. One item was removed. In general, our quantitative results confirm the questionnaire to be valid and reliable after removing some items. It can be used to examine emotional stability, perceived social support, achievement-motivation, and mood in adolescent refugees in an effective way in order to derive individualized interventions if necessary.

# Non-cognitive traits in selection procedures: situational test formats in the admission procedure of teacher education

Koschmieder, Corinna; Weissenbacher, Barbara; Neubauer, Aljosche C.

Karl-Franzens Universität Graz

Non-cognitive constructs show predictive validity with regard to various performance criteria and are commonly used in selection methods (Ryan & Ployhard, 2014). Especially in the past 10 years, research on personality testing has dramatically increased. However, the use of self-report measures is critically discussed in literature (Morgeson et al., 2007a; Ryan & Ployhard, 2014). This presentation introduces two situational test formats for the assessment of non-cognitive traits in selection procedures that are used as alternatives to self-report questionnaires: A situational personality questionnaire to assess health and recovery behavior and a situational judgment test for emotion regulation. The test formats are exemplified by tests from the standardized Austrian admission and selection procedure for teacher studies, which has been implemented since 2014 (Neubauer et al., 2017). For both tests probabilistic testing and structural equation modeling were used for test construction. Particularly in the context of teacher education, it is important for admission assessments to predict future academic achievements as well as later professional competences.

Both Tests were validated in a real selection setting (N>1118) linked to various criteria of academic outcomes in a longitudinal design half a year later (N=842). First predictive validity analyses show correlations of all test formats with pedagogically relevant criteria. Potentials as well as further challenges of different testformats in selction procedures are discussed.

### Choose wisely: maximising information in open-ended personality assessments

Watrin, Luc1; Olaru, Gabriel2; Wilhelm Oliver1

Fixed-length questionnaires are popular in personality research: each participant must answer every item. In voluntary online assessments, however, participants might drop out at any point. Newer approaches have been moving away from the fixed-length paradigm. Instead, items are randomly sampled from extensive item pools and participants work on as many of them as they want, effectively making the questionnaire open-ended. Considering the varying psychometric properties of items, random presentation is naive when not all items are presented. Our goal is to identify rules for successively drawing items from a given validated item pool in order to maximize the available information about an individual at any point of the questionnaire.

We reanalyse data from a 300-item big five questionnaire with a facet structure (N>300,000) using structural equation modelling. First, we select psychometrically-optimised short forms for the factors using ant colony optimisation. Subsequently, stepwise item selection rules are identified to satisfy an increasing number of criteria at progressing questionnaire lengths (e.g. facet structure, nomothetic span, reliability, confirmatory model fit). Finally, a simulation study tests these rules, which are then cross-validated in an independent subsample.

We expect that a) test information can vastly be improved with guided item sampling and that b) rather short questionnaires are sufficient to approximate full-length information. We discuss the process, implications, and possible future directions of this study.

# It's all About the Environment. Insights from Within- and Between-Person Analyses

TIME 14:00 – 15:30

LOCATION Workshop-Room 4b (WS4b)

CHAIRS Naemi Brandt, Universität Hamburg

Jenny Wagner, Universität Hamburg

An increasing body of research suggests the changeability of personality across the entire lifespan. Since these changes are only partly explained by the unfolding of a genetic schedule, diverse environmental factors have been brought into play as potential predictors of personality change. Within this environmental view, personality development has been mainly studied on the between-person level, yet processes on the within-person level might offer additional insights about the importance of environmental experiences on intraindividual personality changes. This symposium adds to this juvenile research field with four talks looking at contextual predictors of personality change on both between- and within-person level in age-heterogeneous, longitudinal samples from three different countries. The first two talks focus on the specific age span of adolescence, with Israel et al. investigating whether academic achievement is associated with changes in the Big Five traits from grade 5 to 8, and in the second talk Brandt et al. are focusing on the dynamic interrelationship of impulse-control and diverse school-related experiences across high school. Addressing a wider age range, Kuper et al. focus on personality trait changes related to drug use in a nationally representative sample of the Dutch population. Finally, Wrzus and colleagues investigate in what way varying contextual influences affect change patterns of personality traits in younger and older adults

<sup>&</sup>lt;sup>1</sup> Ulm Universität, <sup>2</sup> Kassel Universität

comparing self-report and implicit measures of personality. This symposium contributes to a more finegrained understanding about the role of the environment for personality development but also illustrates different manifestations across life periods and contexts.

# The Longitudinal Interplay of Personality and Academic Achievement During Adolescence: The Importance of School for Developmental Trajectories

**Israel, Anne;** Spengler, Marion; Lüdtke, Oliver; Nagengast, Benjamin; Göllner, Richard; Trautwein, Ulrich; Wagner, Jenny

Universität Hamburg

Adolescence is a developmental period of vast changes due to biological maturation, identity formation, and new societal expectations and reference values. This developmental process can be understood as dynamic, continuous, and reciprocal interaction between individuals and their environment. One key environment of adolescence is the educational context of school. Past research has demonstrated strong cross-sectional associations between personality and academic achievement. However, little is known about these associations longitudinally and thus, about the potential dynamic interplay between personality and achievement change during adolescence. The present study addresses this important research question by examining the longitudinal interplay between the Big Five personality traits and different academic achievement indicators at four measurement points from 5th to 8th grade. Extending preliminary evidence showing a bidirectional association between extraversion and conscientiousness with academic achievement we expect, first, that those two traits are the most consistent predictors of achievement change and second, that achievement predicts change in conscientiousness and extraversion across time. Furthermore, we hypothesize that openness and neuroticism predict change in achievement but not vice versa. Using longitudinal data from the large-scale TRAIN study we will contrast classical between-person models with recently developed within-person models across four measurement points for each combination of personality trait and achievement indicator. The discussion will integrate our findings into the current picture on personality development in adolescence and the role of school-related environmental factors. We also highlight directions for future research.

### Longitudinal Dynamics Between School-Related Experiences and Personality Change

Brandt, Naemi; Mike, Anissa; Jackson, Joshua

Universität Hamburg

Across the world, scientists have emphasized the power of personality for students' academic success in school. Among the Big Five traits, conscientiousness and openness show the strongest relation to academic performance. Although the relevance of personality for academic performance is wellestablished, less is known about whether experiences students' undergo in high school are likewise related to changes in personality traits. As adolescents spend much of their time in school, the school environment turns out to be a relevant candidate for enduring influences on students' thoughts, feelings and behavior. We therefore tested mutual associations between personality and schoolrelated experiences. We focused on impulse control, a facet of conscientiousness with substantial relations to performance and a plethora of other important life outcomes. By using a longitudinal dataset (N=8,421) of the National Longitudinal Survey of Youth, we followed students from ages 10-21 across American high school years. We estimated random intercept crossed-lagged panel models in order to test reciprocal associations between impulse control and school-related experiences on a within-person level. We found that personality and some school-related experiences were reciprocally related. The results suggest that experiences students gain at school are notable predictors of personality trait changes, pointing to the important role of normative daily experiences for personality development.

Does Substance use Lead to Personality Change? Results From a Large Longitudinal Study

Kuper, Niclas<sup>1</sup>; Kröncke, Lara<sup>1</sup>; Bleidron, Wiebke<sup>2</sup>; Denissen, Jaap J.A.<sup>3</sup>

<sup>1</sup> Universität Hamburg, <sup>2</sup> University of California, Davis, <sup>3</sup> University of Tilburg

Different theoretical perspectives have proposed biological and psychosocial determinants of personality change. One mechanism that has received little attention so far is substance use. We present the results of a 10-year longitudinal study using a large, representative sample of the Dutch population (N = 10,872). Participants provided annual data on their substance use (tobacco, alcohol, sedatives, soft drugs, ecstasy, hallucinogens, and hard drugs), Big Five personality traits, life satisfaction, and self-esteem. The average number of assessments per person was 3.03. We used multilevel modelling to disentangle between-person associations of personality and substance use from personality change following substance use (within-person effects). Based on the previous literature, we pre-registered 19 between-person and 9 within-person predictions. Overall, 27 of 49 between-person effects were significant and 89% of our predictions were confirmed. Our results indicated that participants high in neuroticism and low in conscientiousness, life satisfaction, and self-esteem were more likely to consume drugs. These effects were most pronounced for less frequently consumed substances. In contrast to the between-person effects, we found little evidence for personality change following drug use. Only 4 of 49 within-person effects emerged as significant and 0% of our predictions were confirmed. In addition, within-person effect sizes were substantially smaller than the between-person effects. There was evidence for individual differences in personality change after drug use as indicated by significant random slopes in 27 of 49 cases. In sum, our findings suggest that if drugs negatively impact personality, these effects are likely small and differ between individuals.

# Context Matters: Longitudinal Development of Self-rated and Implicitly Measured Big Five Traits in Younger and Older Students

Wrzus, Cornelia1; Quintus, Martin2; Egloff, Boris2

<sup>1</sup> University of Heidelberg, <sup>2</sup> University of Mainz

Big Five personality traits change most during young adulthood and less during later adulthood. This raises the question whether the traits are more stable per se after young adulthood, yet, adults' environments are also partly more established. Thus, greater environmental stability could also contribute to smaller trait changes in older adults. In this longitudinal multimethod study, we tested the competing explanations of trait stability and environment stability by examining (a) whether age differences in personality trait changes are less pronounced when younger and older people experience similar environmental conditions, in this case, college life, and (b) whether people of similar age change differently in different environments. Furthermore, based on dual-process models of personality and because previous research has relied on self-ratings, we examined whether the assumed differential personality changes also occur in implicit measures of traits. In a sample of 380 younger (Mage = 21.4 years) and older (Mage = 67.7 years) students and matched control group participants, we obtained self-ratings and implicit measures of Big Five traits. The results showed that in the same college environment, younger and older students hardly differed in changes of self-rated Big Five, and older students increased even somewhat more in implicitly measured Extraversion compared to younger students. Also, older students changed differently from older nonstudents in self-rated conscientiousness and agreeableness. The findings indicate that changes in personality traits at different ages are related to environmental factors. The study highlights the importance of different measures of traits to better understand personality development beyond self-ratings.

# **POSTER**

## Tue 17 September

TIME 16:00 – 18:00

LOCATION Main Hall (MH)

### 1 Assessing the Psychometric Properties of the Procrastination Assessment Scale-Student

#### **Ghadah Alkhadim**

Taif University, Saudi Arabia

Academic procrastination, the act of needlessly delaying tasks to the point of experiencing subjective discomfort, is a prevalent problem among college students. Such act holds many consequences including low grades, lost time, increased stress, anxiety, depression, decreased long-term learning, or lower self-esteem. Given the high prevalence of procrastination among college students and its negative effects on their grades, health, and learning, researchers have attempted to create scales to investigate its reasons. The most widely used scale in the literature is the Procrastination Assessment Scale-Student (PASS) by Solomon and Rothblum (1984). The PASS consists of two parts: the first assesses the prevalence of procrastination and the second explores reasons for procrastination. The psychometric properties (i.e. validity and reliability) of the PASS were assessed using traditional psychometric approaches (e.g. exploratory factor analysis and Cronbach's coefficient) that do not account for theory and measurement errors (Brown, 2015; Kline, 2016). Thus, it is the purpose of this paper to assess the psychometric properties of the PASS using robust psychometric approach, like confirmatory factor analysis (CFA), so accurate information about the theory and measure can be inferred. Data are collected from 453 undergraduate students attending the University of Arizona. The findings of this paper will provide audience with information about: 1) how valid Solomon and Rothblum's theory is about academic procrastination; 2) how robust CFA is compared to the traditional psychometric approaches; 2) whether PASS can be utilized for clinical purposes to design interventions to help students cope with procrastination.

# 2 Gratitude From Early Adulthood to Old Age: Differential Effects of Chronological Age and Future Time Perspective

### **Mathias Allemand**

University of Zürich

Are there age differences in dispositional gratitude from early adulthood to old age? Very few studies have investigated the association between age and dispositional gratitude, and the existing research has yielded mixed evidence. In our previous work, we have shown that age effects in gratitude are more likely to occur for subjective age in terms of future time perspective (i.e., people's perceptions of their remaining opportunities and time) than chronological age (Allemand & Hill, 2006). The goal of the present study was to replicate these findings using cross-sectional data from a large and representative study of Swiss adults (N = 1781) aged between 19 and 94 years (M = 49.8 years). The results are largely consistent with our previous work. Dispositional gratitude was only weakly associated with chronological age but it was moderately associated with perceptions of remaining opportunities and weakly associated with perceptions of remaining time. Overall, the findings suggest that dispositional gratitude is subject to a variety of developmental influences across adulthood.

### The Core of Dark Personality and its Varieties

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**Ulm University** 

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Research on personality traits explaining ethically, morally, and socially questionable behavior is becoming increasingly popular in various areas of psychology. Although several of such "dark traits", including the components of the dark triad, were identified, recent research provided evidence that their substantial overlap is attributable to a single core. This so-called Dark Factor of Personality (Dfactor) was conceptualized as the general dispositional tendency underlying a broad variety of dark traits and behaviors. However, the number, nature, and organization of specific manifestations of dark personality beyond D are unknown. The present study further scrutinizes the structure of dark personality by assessing 12 different dark traits in a very large and heterogeneous sample. We conducted a series of exploratory factor analyses with Schmid-Leiman transformation in order to extract the D factor and an increasing number of specific dark traits. Moreover, the bass-ackwards procedure was employed to investigate the hierarchical structure of the dark personality. Exploratory findings from the study sample were cross-validated in a replication sample (both samples > 75,000). The number and organization of dark traits will be discussed. Overall, the positive manifold amongst facets of dark behavior is surprisingly strong. We discuss how such a D-factor can be embedded into the nomological net of established personality traits and whether or not specific dark factors are worth further research.

### 4 Who should I spend my time with? Type of interaction partner and actor neuroticism on selfesteem reactivity in daily social interactions

Lena Beiser; Swantje Müller; Denis Gerstorf; Jenny Wagner

Humboldt-Universität zu Berlin

Although experimental studies of the last two decades highlight the state-like, fluctuating feature of self-esteem, little is known about specific patterns and possible conditions of self-esteem reactivity in people's daily social life. Both theoretical assumptions of sociometer theory and previous empirical studies highlight the role of social interactions as one key situational factor of self-esteem reactivity. Furthermore, individual differences in self-esteem reactivity have been related to people's personality traits with particularly pressing evidence regarding the moderating role of neuroticism. Extending existing research, this study has two aims: First, it will be examined whether the degree to which state self-esteem is predicted by the pleasantness of social interactions (i.e., self-esteem reactivity) is moderated by the interaction partner. Second, it will be examined whether the actor's neuroticism additionally moderates the effect of the interaction partner on self-esteem reactivity. To address these research questions, multilevel analyses will be conducted using experience sampling data (3,577 reports of daily social interactions) of 71 persons aged 60 to 88 years. Findings will shed light into micro-level processes of self-esteem reactivity and its determining factors both on the specific relationship level as well as the person level in daily life.

# Society doesn't care about people like me: Development of the Perceived Societal Marginalization Scale

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Current social conflicts are characterized by identity struggles and societal discontent with respect to globalization and modernization. While the literature identifies several psychological determinants of this discontent, systematic measurement approaches focusing on well-defined constructs are rare. Here, we present the development of the Perceived Societal Marginalization (PSM) Scale that aims at

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assessing individual differences in people's perceived insignificance and devaluation regarding their own social groups in the context of economic, cultural, and political change. As a first step, we provide a definition of PSM and describe a conceptual analysis of its components based on (a) a top-down consideration of relevant psychological, sociological and political science theories and (b) a bottom-up approach including semi-structured group interviews with various German citizen associations followed by qualitative content analysis. Based on two large online surveys including heterogeneous samples (total N > 1,500), we then present results of an initial psychometric validation of the PSM scale (factor structure, reliabilities), and explore sociodemographic, personality, and attitudinal correlates. The discussion focuses on applications of the PSM scale, that is, the role of PSM in explaining societal cleavages as well as threat perceptions towards and rejection of cultural, ethnic, and religious minorities.

### Assessing Work-Related Creative Styles with the Creative Response Evaluation – Work (CRE-W)

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There is consensus that creativity is an important trait for numerous work-related variables (e.g., job satisfaction, salary, or innovation and patent submissions). To meet the increased interest in the assessment of creativity in the field of work, Kaufman and Reiter-Palmon (2019) developed the Creative Response Evaluation-Work (CRE-W), a scenario-test which describes typical real-life situations, dilemmas, and problems that employees might experience in their daily work. Participants are presented with a number of reactions they may choose to address the presented situation. The CRE-W allows to assess two creative styles; namely, thinking in new (i.e., creating new ideas and many solutions) and different ways (i.e., adapting and improving existing ideas to solve problems), as well as a weighted global score representing participants' tendency to act creatively to solve problems. We have developed the German-language adaptation of the CRE-W and present findings on the factorial validity (Confirmatory Factor Analyses, Sample 1/2 of N = 449/286 professionals) and relationships with external measures, such as performance tests of creative abilities (e.g., Berliner Intelligenzstrukturtest; Jäger et al., 1997; Sample 3: N = 102 professionals), self-rated creativity (e.g., Kaufman Domains of Creativity Scale; Kaufman, 2012), and theoretically related variables (e.g., workrelated curiosity and cognitive styles; Sample 4: N = 294 professionals). Factor analyses supported the expected 2-factorial structure and correlations were in the expected direction; there was some overlap but no redundancy with the other indicators of creativity. The findings support the usage of the CRE-W to assess creative styles of employees and job candidates.

# Which Behaviors Matter? Investigating the Perceived and Actual Relationship Between Nonverbal Cues and the Big Five

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<sup>1</sup> University of Münster; <sup>2</sup> Johannes Gutenberg University Mainz

While there have been multiple studies investigating the relationship between personality / personality judgments on the one side and nonverbal behavior on the other side, there has been no systematic overview of these relationships so far. Thus, in this meta-analysis, we summarize research on the validity of nonverbal cues (what kind of nonverbal cues are good indicators of personality?) as well as the utilization of nonverbal cues (what kind of nonverbal cues lead to personality impressions?), resulting in a catalogue of those cues that drive accuracy for different traits. We hereby used data of 65 studies (N = 7197) that investigated these relationships. We extracted 39 distinct cues that were allocated to the four domains of facial expression (e.g., cheerful facial expression, eye contact), body language (e.g., gestures, self-touch), paralanguage (e.g., loudness, pitch), and appearance (e.g., attractiveness, stylishness, height). Results show that, for all traits, there are at least a few nonverbal cues that allow for accurate glimpses into one's personality. However, many cues

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that were used by observers, were no valid indicators of the respective personality trait. These results are discussed regarding personal and situational characteristics that moderate the expression and utilization of nonverbal cues.

# Positive biases and inter-rater agreement in judgment of personality traits among close friends: A comparison of a trait judgment task and a personality questionnaire

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RWTH Aachen University Hospital

Experimental studies reveal a positive bias in attributing personality traits to oneself. People choose mainly positive traits as self-descriptive and tend to judge other persons as less positive compared to themselves. The study aim was to investigate differences in choice when judging oneself as compared to judging others, and, whether inter-rater agreement in a trait judgment task corresponds to inter-rater agreement in a personality questionnaire. Sixty participants were asked to indicate for themselves and a close friend, who simultaneously carried out the same tasks, to what extent 50 traits describe them as a person. Moreover, the short version of the NEO-Five-Factor-Inventory (NEO-FFI-30; Körner et al., 2008) was completed twice, once for "self" and once for the close "other". In the trait judgment task, participants chose more positive than negative adjectives in both conditions ("self" and "other" rating). Regarding the agreement between the two judges (attribution of a trait with regard to one and the same person), the majority of adjectives was assigned equally in the two testing-conditions. As for the inter-rater-agreement on the NEO-FFI-30, significant differences between self- and other-ratings were found on three scales. The associations (Pearson's r) between the inter-rater-agreement in the judgment task and each of the five scales of the questionnaire ranged between -.02 to .2, indicating only small agreement between the NEO-FFI-30 and choice during the judgment task.

# Are Need for Cognition and subjective well-being related? Survey-based Data from German schoolchildren of two different schools

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<sup>1</sup> TU Chemnitz

Need for Cognition (NFC) is known as the tendency of an individual to engage in effortful cognitive activities and to enjoy thinking. NFC has been shown to be associated with better school performance (grades, attending university, less discontinuation of study) and more elaborate information processing. Recent findings point out that higher NFC could not only be beneficial for academic performance but also concerning emotionally demanding situations. For example, teacher trainees high in NFC coped emotional stress more active and problem oriented and students high in NFC experienced more well-being in university. With the aim of finding out whether higher NFC can help preventing stress in school and foster pupil's subjective well-being, a survey-based study comprising 228 schoolchildren attending a secondary school (class 5 to 10) and 143 schoolchildren who visited a school for highly gifted and talented children (class 7 to 11) was conducted. We gathered self-reports about NFC, subjective well-being, achievement motives, school grades and selfestimated intelligence. Data were analyzed using correlational and regression analyses. According to the preliminary results of the highly gifted children, NFC is negatively associated with depressive mood (r = -.48) and positively with enjoyment of life (r = .27). Furthermore, regression analyses showed that NFC predicts depressive mood (b = -.13) and physical discomfort (b = .17). The results of both samples underscore the assumption that NFC is beneficial for psychosocial health and wellbeing in school.

### 10 Fearless goal orientation predicts dieting success

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Intended weight-loss needs frequent monitoring of one's progress and daily evaluation whether one's behaviour and goal are aligned. Alignment with a goal comes easily when the goal is integrated in the self and positive emotionality is evoked. However, restrained eating, the most prevalent means of weight loss in dieting individuals, was reported to be often times unsuccessful. Evidence suggests that restrained eaters exert constant self-control of the dieting performance and nutritional behavioural choices. While self-control was found to lead to ego-depletion and effortful application of attentional, emotional and other resources, self-regulation seems to ease successful goal reaching. We hypothesized that self-control, reflected in goal orientation with fear would therefore lead to less successful changes in eating behaviour than integrating the goal into the self, measured as goal orientation without fear. As part of a bigger project of the University of Salzburg, we collected data on the discrepancy of intended and concrete eating choices of participants and their goal orientation traits. Analysis of the data revealed that goal orientation without fear predicted significantly higher realisation of previously intended eating behaviours. Results are discussed in regards to other personality traits that are correlated to goal oriented behaviours we measured in our study but did not reach statistical significance.

### 11 Embrace yourself! How can self-compassion help in coping with daily hassles?

Christina Ewert¹; Rosanna Wendel¹; Cosma Hoffmann²; Michela Schröder-Abé¹

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Challenging situations, personal failures or losses often elicit impaired well-being. Self-compassion is a positive self-attitude which has recently gained attention in the context of psychological health and well-being; yet few studies have investigated mechanisms through which it exerts its protective influence. Using a longitudinal ambulatory assessment design, the present study investigates daily stress processes as potential mediators between self-compassion and emotional well-being. On their smart-phones, 213 subjects completed questionnaires addressing perceived daily hassles, coping strategies, and affect three times per day throughout seven consecutive days. After controlling for trait neuroticism, self-compassion remained significantly associated with daily positive and negative affect. Furthermore, results demonstrated that self-compassionate individuals experienced reduced daily stress and used less avoidance coping. In addition, adaptive stress responses mediated the relationship between trait self-compassion and daily emotional well-being. The results strengthen previous findings regarding the protective nature of self-compassion and highlight its relationship with daily stress processing.

### 12 Serotonin Transporter Genetic Variation and Anxiety-related Personality Traits

### Andrea Felten; Martin Reuter

University of Bonn

Polymorphisms of the serotonergic system are the most investigated genetic variants with respect to anxiety-related personality traits and affective disorders. Mostly the prominent 5-HTTLPR, a functional VNTR in the 5-HTT promoter region, is intensively investigated but effect sizes in meta-analyses are small and results are inconsistent. Inspired by the replication-crisis we reinvestigated the association of 5-HTTLPR with harm avoidance and neuroticism taking another putatively functional 5-HTT-VNTR (Stin2), assumed to have transcription regulating properties, into account. N=1947 participants were genotyped and filled in the TCI and NEO-FFI. No main effects or interactions

between the 5-HTT genotypes (using the common genotype or triallelic approach for 5-HTTLPR) on personality could be observed neither for the total sample nor for subgroups of affective patients (burnout/depression) and controls. Results do not question genetic 5-HTT effects in general but highlight the multifactorial interplay of genetic variants on anxiety-related personality traits.

### 13 Dating Apps: Why do we swipe?

### Lennart Freyth de Polo León

JKU Linz

In recent years, there has been an increasing interest in the nature of Online Dating Apps like Tinder, Badoo and similar, whether in science or lifestyle publications. A considerable amount of studies has been focussing on motivational or specific characteristics like risky behaviour. Until today, only few studies combined different explanations for using the Apps. This study is the first with a wide approach and the first based on more reliable, non-responsive data. The Dating App Usage was examined regarding main personality factors focusing on (dark) traits, attitudes, most cited motivation variables like love, sex, relationship, gender differences status and domain specific traits such as Sociosexuality, Satisficing, Sexual Satisfaction and Compulsivity. And further investigating beyond usage per se, which factors are relevant for using the Apps for a longer time, if used. Two main models were calculated using responsive and non-responsive data selected by an online panel and tracking data (ntotal =555). Model 1 used a logistic regression for prediction if people use the Apps, Model 2 a multiple linear regression to predict how long they use them. Advantage of the current work are the partwise objective depending variable in Model 1 and completely objective one in Model 2. Moderators were tested and purely statistical tests are presented to offer an alternative solution to compare the theoretical approach. Results show main influences by the Dark Triad as looking for love, looking for sex and Sociosexuality. Relationship status and gender do not show significant prediction value. No interactions were found.

# 14 Cognition vs. Motivation: How Need for Cognition Relates to Intelligence and Other Basic Cognitive Abilities

Julia Grass; Anja Strobel

TU Chemnitz

Need for Cognition (NFC) describes interindividual differences in the tendency to enjoy thinking and to engage in cognitive endeavors. Conceptually, NFC has been related to different modes of information processing. Previous research provided evidence for small to medium associations between NFC and intelligence, sometimes differing for fluid and crystallized intelligence. From a theoretical perspective, processing information efficiently may promote to develop positive attitudes toward effortful cognitive activities. Additionally there is evidence for links between NFC and the recruitment of cognitive resources, which may be related to the efficiency of basic cognitive processes. However, little is empirically known about processes behind or relations of NFC to other cognitive abilities. We present results of a study that examined associations of NFC to executive functions, mental speed, and intelligence. The analyzed sample consisted of 102 students. NFC was assessed via self-report. Two intelligence tests were used to assess fluid and crystallized intelligence (CFT 20-R, Weiß, 2006; BEFKI GC-K, Schipolowski et al., 2014). To measure basic cognitive processes, we used the numbers connecting task (Oswald & Roth, 1987) and a test battery including two tasks for the executive functions Shifting, Inhibition, and Updating, respectively. Our results replicate findings of associations around r = .30 with intelligence, with a slightly stronger association to fluid intelligence. The association of NFC with mental speed was r =.16. NFC did not correlate with executive-function tasks. Hence, our results underline conceptual differences between NFC and cognitive abilities and thereby contribute to the understanding of the nature of NFC.

# 15 Competently crossing cultures: A new behavioral-oriented approach to assessing the development of intercultural competence

Henriette Greischel<sup>1</sup>,<sup>2</sup>; Julia Zimmermann<sup>1</sup>; Anette Rohmann<sup>1</sup>

<sup>1</sup> FernUniversität in Hagen; <sup>2</sup> Ludwig-Maximilians-Universität München

The ability to deal with people from other cultures has become a key competence in times of globalization and migration. For example, exchange students need to interact with people of different cultural backgrounds and, thus, to develop intercultural competence (IC; Ang et al., 2007; Deardorff, 2004). To measure IC and its development, situational judgements of critical intercultural incidents have been suggested as a valid alternative to the often-used self-report scales (Schwarzenthal et al., 2017). The focus of the present study was to develop and validate a behavioral-oriented instrument that assesses IC in student sojourners. To this end, we developed a large number of critical incidents that were tested in a heterogeneous student population (N = 20). Participants were asked to answer questions referring to three IC dimensions: Whereas the cognitive dimension refers to a person's cultural knowledge, the behavioral dimension describes the ability to navigate appropriately through intercultural situations. The metacognitive dimension refers to strategies used to reflect cultural knowledge. Participants' open format answers were then rated by intercultural experts with regard to IC levels. Item selection, investigation of the factor structure, and psychometric properties of the newly developed measure are presented. Furthermore, findings from the validity assessments investigating associations with relevant constructs (i.e., self-reported IC, personality traits, and interaction confidence) in multicultural encounters are discussed. Finally, we will provide an outlook on the development of a closed-format version to be used in large-scale panel studies. Practical implications of the measure regarding assessment of IC development in sojourners are elucidated.

### The link between g factor loadings and heritability coefficients: A meta-analysis

#### Jan Groth

University of Bonn

The association of loadings on the general factor of intelligence (g factor) with heritability estimates was investigated using the method of correlated vectors. While in Western countries, the positive relationship of g loadings to heritability constitutes a well-established finding, the observed magnitudes of correlations still display large variability (Voronin et al., 2016). In contrast to the generally positive correlations found in Western countries, a Russian study (ibid.) reports small negative correlations in two data points. The present study firstly aimed at explaining variance between Western studies meta-analysing all available studies. Depending on the deployed meta-analytic artifact corrections and sensitivity analyses, additional variance could be explained. Secondly, a possible explanation as to why the Russian data points are not in accord with Western findings is discussed: A heritability coefficient in ability and achievement domains can be regarded as an index of equal opportunity typical of (Western) meritocracies (Plomin, 2018). Thus, the Russian outliers may simply reflect a certain lack of meritocratic virtues and hence a lack of equal opportunity. It is concluded that in order to make sense of the high variability of correlations between g loadings and heritability coefficients, psychometric, artifactual as well as sociological factors should be considered.

### Psychologists' attitudes towards tests and testing

### Carmen Hagemeister<sup>1</sup>; Fredi Lang<sup>2</sup>; Kim-Oliver Tietze<sup>3</sup>

<sup>1</sup> TU Dresden; <sup>2</sup> Berufsverband Deutscher Psychologinnen und Psychologen; <sup>3</sup> Euro-FU University of Applied Sciences

Ten years ago, the Board of Assessment of the European Federation of Psychologists' Association carried out a survey on test and testing in several European countries. The target group were psychologists. The focus was on attitudes towards tests and testing. This survey is repeated in 2019. The results from Germany will be presented. In Germany, a more general section on attitudes towards assessment instruments is added: How do psychologists in different fields of work decide which assessment instruments they use? Here, the main focus is on tests and questionnaires versus interviews. Which role does training in assessment at the university and later play? How do psychologists of different fields combine data from different sources? Which means are used to acquire information about the quality of tests? How important are test reviews in Germany? A decade ago, the survey showed a serious problem of test quality: Some of the tests psychologists used turned out to be outdated. In the present survey some questions regarding old tests are to be answered: Are the psychologists aware that tests can become outdated? Why do they use outdated instruments? Are the test users aware of the problems? Which "solutions" do they have to deal with test norms which are no longer applicable? The results are presented, we discuss which conditions and attitudes are important to ensure good practice.

### 18 It is extremely annoying but I cycle here anyway

#### Carmen Hagemeister; Stefanie Ruf

TU Dresden

Cycling infrastructure is seen as a key feature to encourage persons who do not cycle at all or for tourist purposes only to cycle more and for utility purposes. As space is very limited in cities other measures like sharrows are used to guide cyclist into mixed traffic where separation is impossible. Up to now it is not clear which cyclists are more or less influenced by such measures. A minority of cyclists cycles "everywhere" and does not demand separation from motor traffic or even rejects it. These persons, mainly male, mainly fast, mainly middle aged, cycle in dense traffic when necessary. A series of interviews is conducted in order to find out relevant attitudes of these cyclists and how they explain their behaviour. For practical purposes it is relevant to know in how far this extreme behaviour can be explained by – stable – personality traits or by - changeable - attitudes or experiences. In a former survey neither neuroticism nor agreeableness turned out to be correlated with separation preference. General or context-specific perceived self-efficacy might be another important individual characteristic but how does it develop? Which experiences and observations lead to first behaviour changes and how do they interact with risk perception and risk aversion? The results of the interviews will be used to construct a survey in order to find the differences between cyclists with a low and a high separation preference and between cyclists who can be influenced more or less easily by measures like sharrows.

# 19 Self-esteem reactivity in the context of social interactions: The role of psychosocial, physical, and cognitive resources

**Natalie Harpeng**; Swantje Müller; Karolina Kolodziejczak; Johanna Drewelies; Denis Gerstorf; Jenny Wagner

Humboldt Universität zu Berlin

Self-esteem has been shown to be a personality feature that has both relatively stable trait proportions representing a kernel of self-esteem as well as state proportions illustrating short-term

variability most likely due to environmental or situational changes. Theoretical assumptions of sociometer theory and evidence from previous mostly experimental studies have emphasized the influence of social interactions as one trigger of momentary fluctuations in state self-esteem. However, little is known about self-esteem reactivity in people's daily life and the possible moderating role of daily psychosocial, health, and cognitive resources late in life. The present work has investigated self-esteem reactivity in the context of daily social interactions using experience sampling data from 71 persons aged 60 to 88 years (49% female). Multilevel analyses based on 3,577 daily reports revealed three main findings. First, a positive relation between the assessed social interaction's pleasantness and the current self-esteem was found, indicating that state self-esteem has increased after pleasant interactions. Second, self-esteem reactivity in the context of social interactions was less pronounced for people with higher levels of perceived control both betweenperson and within-person. Third, results did not support the hypothesized moderating role of subjective health and working memory performance. Findings suggest that the availability of individual psychosocial resources has a greater impact on state self-esteem and its reactivity in daily social interactions than physical or cognitive resources. Possible implications of the results, ideas for future research and methodological limitations are discussed.

### 20 Validation of an Implicit Measure of Antagonistic Narcissism

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**University of Potsdam** 

Narcissism has traditionally been assessed using explicit (i.e., self-report) measures. Explicit measures, however, are particularly susceptible to response biases, such as impression management or social desirability. To circumvent these biases and to capture more automatic self-evaluations, we propose a new implicit measure of narcissism, the narcissism Implicit Association Test (IAT). In two studies (total N = 872), we investigated the psychometric properties of this implicit measure of narcissism using self- and informant-reports as well as other implicit measures. The narcissism IAT demonstrated high reliability and showed convergent and discriminant validity. It was positively associated with self- and informant reports of antagonistic narcissism, aggression, and lack of empathy, but it was unrelated to pathological and communal narcissism as well as implicit and explicit self-esteem. In support of its incremental validity, the narcissism IAT was able to predict aggression and empathy scores above and beyond antagonistic, agentic, and grandiose narcissism ratings as well as implicit and explicit agreeableness. Furthermore, the narcissism IAT predicted informant-ratings of narcissism, aggression, and empathy above and beyond self-reported narcissism. Together, the narcissism IAT is a promising addition to the assessment of the multifaceted construct of narcissism. Implications and future applications are discussed.

# 21 Sugar and spice and everything nice? – Social desirability as a (partial) mediator between sex and dark triad

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Justus-Liebig-University Gießen

The dark triad of personality (DT) is mainly assessed via self-assessment questionnaires. Therefore, it is possible that the consistently found differences in DT scores between women and men are partially caused by methodological influences. Self-ratings in questionnaires are prone to social desirability, especially when targeting unethical behavior and attitudes such as the DT. Moreover, a gender effect for social desirability is reported; hence, women achieve higher scores in social desirability than men. Taking together, this study investigates whether social desirability partially mediates the relationship between biological sex and dark triad scores in self-assessed questionnaires. To quantify the effect of social desirability, participants provide other-ratings of their DT by a peer. This other-rating will be used as non-biased data for the participants' "true" DT score.

Data collection for this study is in progress. Based on  $G^*$ Power analyses a sample of N = 350 adults (no psychology students) is targeted.

### A critical perspective on the concept and assessment of Sensory Processing Sensitivity

Susan Hellwig; Marcus Roth

University of Duisburg-Essen

Sensory Processing Sensitivity (SPS) has been proposed as a new personality trait characterized by perceiving sensory information more intensively. Highly sensitive individuals are described as more easily overwhelmed by environmental stimuli, but also as more capable to recognize them. Recently, SPS has gained much interest in the scientific as well as popular scientific literature. It has been claimed that SPS is distinguishable from established personality factors (including Neuroticism and Introversion) and positively related to empathy. This presentation addresses (a) theoretical problems of the concept of SPS as well as (b) validity issues concerning the only available measure of SPS, the Highly Sensitive Person Scale (HSPS). Validity of the HSPS was examined in two studies. In Study 1 (N = 289), relations of the HSPS to facets of the Big-Five personality factors are presented. In contrast to previous studies, which indicate that SPS is relatively independent of the Big-Five, we considered reliability of the instruments and report estimates at a latent variable level. The data suggest that SPS can be largely explained by personality factors, mainly by Neuroticism, Introversion, and Openness to Experience. In Study 2 (N = 104), the relationships between the HSPS, the Big-Five personality traits, and a performance-based measure of emotion recognition ability were examined. Results indicate that SPS is unrelated to empathic abilities. Overall, validity evidence for the HSPS is weak and it appears questionable whether SPS actually constitutes a new construct that is distinguishable from established personality factors.

### 23 A German version of the Triangular Love Scale

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The influential Triangular Theory of Love by Robert J. Sternberg (1986) states that when it comes to loving relationships, three separate components contribute to the feelings of love: Passion, intimacy, and commitment. Depending on the magnitude of each of the three dimensions, according to Sternberg, seven different types of love can be distinguished. Intimacy without the two other components of passion and commitment is labeled friendship, for example. Intimacy and passion add up to romantic love. When all three components are present, this total form of love is called consummate love. The Triangular Love Scale is a 45-item English scale to measure these relationship-specific elements of love (Sternberg, 1998). With this poster, we present the psychometric properties of a German translation that has been tested with a student sample of the FernUniversität in Hagen. The German version is psychometrically sound, its three-factorial structure replicates and shows satisfactory convergent and discriminant validity.

# 24 Do facets of mindfulness interact in predicting threat appraisals and perceived stress in daily life? An ambulatory assessment study

Cosma Hoffmann¹; Christina Ewert²; Fay Geisler¹

<sup>1</sup> University of Greifswald; <sup>2</sup> University of Potsdam

Mindful individuals observe ongoing events and experiences with acceptance. This mode of experiencing suggests implications for stress processing in daily life. Previous studies support the idea that mindfulness is associated with more benign threat appraisals of demanding situations and thereby with less perceived stress. Using an ambulatory assessment strategy we wanted to validate these associations at the state level. College students' (N = 213) levels of trait mindfulness were

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assessed via self-report. Subsequently, they were paged three times per day for one week on their smartphones and reported on their state mindfulness, whether they had experienced a stressful situation, how threatening they appraised this situation to be, and their momentary stress level. Since we assessed the mindfulness facets of "observing own experiences" and "acceptance" separately, we were able to test the hypothesis derived from Monitoring-and-Acceptance Theory (Lindsay & Creswell, 2017) that these facets interact in predicting threat appraisals and perceived stress in daily life. With regard to the interaction, we expected observing to be beneficially associated with threat appraisals and perceived stress in daily life when acceptance is high, and disadvantageously when acceptance is low. Multilevel analyses support the hypothesis that state mindfulness predicts lower perceived stress levels, mediated by benign threat appraisals at the within-person level. Cross-level-interactions show that the effect of observing own experiences on threat appraisal and perceived stress in daily life is contingent on acceptance levels. Important implications for understanding the impact of mindfulness facets on stress processing in daily life - and thus the potential of using mindfulness to cope with demanding situations - are discussed.

# The Big Five Inventory: Psychometric properties of a Czech adaptation in the majority and Vietnamese minority

#### Martina Hřebíčková

Czech Academy of Sciences

Two studies were conducted to estimate basic psychometric properties of the Czech adaptation of the Big Five Inventories (BFI, BFI-2, BFI-2-S, BFI-2-XS) measuring five basic personality dimensions. In study 1 The BFI was administered to 450 Czech Vietnamese; in study 2 1,818 Czech participants provided self-report on the BFI-2. The results of these studies documented good reliability at the domain level and sufficient reliability at the facet level in the BFI-2. The BFI-2 domains internal consistency, ranging from 0.85 to 0.89. Internal consistency of individual facets ranged from 0.56 to 0.83 (M = 0.74). Average BFI-2 test-retest reliability estimated over a six month period was r = 0.86 for domains and r = 0.80 for facets. All facets of the BFI-2 showed factor loadings 0.30 or higher on the intended factor. Only in four cases, secondary factor loading was higher than 0.30 on the additional factor. The BFI-2 hierarchical structure with 15 facets was confirmed using CFA. Short versions BFI-2-S and BFI-2-XS captured 81% and 58% of the full version of the BFI-2 inventory. In both minority and majority sample, I demonstrated that the psychometric properties of these adapted measures are consistent with an original version. Czech versions Big Five Inventories are reliable measures of the Big Five personality traits and are appropriate for use in Czech and cross-cultural research.

# What self-descriptions reveal about dealing with ridicule and being laughed at: The accuracy of judgments on gelotophobia, gelotophilia, and katagelasticism

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Gelotophobia (fear of being laughed at), gelotophilia (joy of being laughed at), and katagelasticism (joy of laughing at others) are three unidimensional traits that describe individual differences in how people deal with ridicule and being laughed at. There is evidence that the dispositions play an important role in social life (e.g., romantic relationships, bullying-type situations, or in therapeutic settings), but no study has yet addressed how accurately the dispositions can be inferred in others, particularly at zero-acquaintance. We address this gap by testing the self-other agreement (SOA) and consensus. Targets (N = 218) provided self-ratings on the three dispositions towards laughter (PhoPhiKat-45; Ruch & Proyer, 2009) and wrote short self-descriptions (M = 46 words), which were presented to ten independently working judges. Our findings showed that the SOA for the traits ( $r \ge .33$ ) and profiles ( $r \ge .21$ ) was above chance and that there was substantial inter-judge agreement (ICC  $\ge .48$ ). Lens model analyses showed a positive association between the existence of linguistic

cues and their utilization for the judgments ( $r \ge .37$ ). Overall, our data show that how people deal with ridicule and being laughed at can be perceived on basis of comparatively little textual information.

### 27 When You are not the Master of Your Mind: Does Frustration of Affiliation Causes Alienation?

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People sometimes do not really know what they want as they orient themselves to others' expectations rather than to "follow their heart". Previous research has demonstrated that this is a function of personality-by-situation interactions, as individuals with low levels of emotion-regulation abilities tend to mistake others' expectations for self-chosen goals, especially under conditions of negative affect or stress. Here, we investigated in a sample of N=263 students the frustration of the affiliation motive in terms of social exclusion in a virtual ball-tossing ("CyberBall") game. As expected, individuals with low emotion-regulation abilities showed a higher rate of misremembering tasks assigned by somebody else as self-chosen. Additionally, pre-post-choice changes in affective preferences for the tasks turned out to be a function of actual and remembered self-choice. The present findings support the assumption that being "the master of one's mind" is a function of the interaction between personality (emotion regulation abilities) and situation (social exclusion).

# 28 Examining the factor structure and hierarchical nature of explicit motives with bottom-up factor analysis

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Personality psychologists typically describe personality using two concepts: Motives (Murray, 1938) and traits (Allport, 1934). While motives capture goal-directed or needs-driven behavior, traits focus on typical and frequent behavior. While explicit motives are conceptually and empirically related to traits because both constructs are typically measured using questionnaire measures, there are also important conceptual differences. For instance, explicit motives---unlike traits---can include behavior or items that do not occur frequently and are outside the person's behavioral repertoire (Winter et al., 1998). Despite the important conceptual differences between explicit motives and traits, there is currently limited systematic research available on the structure of explicit motives and empirical links and differences with trait measures. In the present study, we therefore used bottom-up factor analysis---the methodology used in the development of the five-factor model of personality (e.g., Ashton, Lee, & Goldberg, 2004)---and apply this methodology to a large explicit motives inventory with 144 items and 16 motive scales - the LUXXprofile (Kemper, Dörendahl, & Greiff, 2017). Results from a representative sample of N=200 participants revealed clear evidence for the multidimensionality of the measure. Detailed results concerning the merging factors on different levels of the hierarchy will be presented. Correlations with the BFI-2 trait inventory provided evidence for substantial overlap but also showed important differences between the traits and explicit motives conceptualizations. Our results provide novel insights into the nature and structure of explicit motives and thereby advance psychologists' understanding of the important domain of individual differences.

### Testing the family stress model with respect to social exclusion events as family stressors

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Social exclusion is not a circumstance that only one person suffers from, but rather the whole family can be affected. The family stress model (Conger & Elder, 1994) offers a framework to understand how stressors affect family processes and climate. According to the model, stressors (originally limited to economic pressure) lead to a cascade of parental behavior changes that finally lead to offspring adjustment problems. It has been argued that this model is not just applicable to economic stressors but should also be applicable to a variety of potential stressors which, however, has not been tested yet. So, the current study aims to investigate via structural equation modelling whether the family stress model is applicable to social exclusion events in terms of whether perceived discrimination affects offspring adjustment problems, such as deviance, through parental distress and disrupted parenting. In addition, we test the temporal sequence of behavioral changes (disrupted parenting and perceived discrimination as antecedent vs. consequence of offspring adjustment problems) and whether fathers and mothers contribute differently to the development of offspring adjustment problems in reaction to social exclusion events. Data of about 3.000 families is drawn from the German TwinLife panel study. If social exclusion events lead to a similar cascade of behavior changes, this may provide vital hints for a more generalized model of how stressors affect family dynamics and offspring adjustment problems. A suitable model for explaining the effects of social exclusion on families may have important practical implications to plan specific interventions.

### How conscientious am I, really? Ask my best friend!

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Previous research on the impostor self-concept and its connection to other established personality traits indicates a negative correlation with conscientiousness. However, this result is based exclusively on self-ratings which may be falsified by underreporting. This raises concerns about a common method bias. Therefore, our study is the first to examine the relationship between the two constructs taking acquaintance-ratings into account. 247 subjects of a mixed student-employee sample rated themselves with regard to their manifestations in impostor self-concept (CIPS) and conscientiousness (NEO-PI-R self-report form). Additional conscientiousness ratings (NEO-PI-R observer form) were obtained from their best friends (n = 141). As expected, the correlation between the impostor self-concept and the self-ratings of conscientiousness was negative (r = -.21), which was primarily owed to the sub-facets competence (r = -.48), self-discipline (r = -.31) and dutifulness (r = -.48) .15). However, on the basis of the acquaintance-ratings there were no significant correlations with conscientiousness (r = -.01) or its sub-facets (r = .01 to .15). Our results thus reveal that impostors can no longer be characterized by a visible lack of conscientiousness and that the negative correlation of the constructs can be interpreted as a methodical artifact of harsh self-criticism, which lies at the core of the impostor self-concept. A methodologically differentiated investigation of the impostor selfconcept along fundamental dimensions of personality in the sense of the five-factor model contributes to a further deepening of the comprehension of this maladaptive personality trait and to a better integration of previous research results.

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# 31 Self-compassion improves affectivity during exam preparation via relevance and coping appraisals

Insa Knörnschild; Cosma Hoffmann; **Fay Geisler** *University of Greifswald* 

Those who are self-compassionate have an accepting and caring attitude towards themselves. We examined whether this attitude is beneficial for students dealing with stress while preparing for exams. We tested the hypotheses that the association between self-compassion and affectivity is mediated via primary (relevance) and secondary (coping) appraisals. Students (N = 73, 44 % psychology, M = 4 Semester, SD = 2.72) filled in self-reports online on traits and rated how they typically felt while preparing for exams on mood dimensions, in how far they appraised university as challenge, threat or loss, and in how far they believe to be able to employ different strategies to cope with exam preparation. In the laboratory (N = 50) they followed imagination exercise instructions in order to experience a situation in which they are preparing for an exam and rated their mood in that situation. We controlled for shared variance of self-compassion with self-esteem and self-efficacy. The association of self-compassion with better habitual affectivity during exam preparation was fully mediated by appraising the university as a challenge. The association between the negative selfcompassion facets over-identification and isolation with worse affectivity while preparing for an exam was mediated by not appraising the university as a challenge and oneself as less efficient in applying coping strategies. These results connect self-compassion with the well-known coping processes and underline the importance of experiencing university as a challenge for student well-being. The imagination exercise proved to be a profitable supplement to assessing self-reported habitual mood.

### Bring your own device: Validity of intelligence tests conducted on own smartphones

**Marco Koch;** Julie Levacher; Frank M. Spinath; Nicolas Becker *Saarland University* 

Computerized testing offers many advantages compared to traditional pen-and-paper tests. However, the initial costs of hardware acquisition are quite large, and keep growing the more applicants are to be tested simultaneously. Thus computerized tests are not used as frequently as desired. Nowadays, most people always keep at least one smartphone or tablet computer with mobile internet at hand, which are more than powerful enough in order to be used for psychological testing. The current study aimed to examine in how far tests conducted on one's own personal device are comparable to results from a standardized device when one inspects the main criteria for test quality. To answer this question, participants were tested in standardized laboratories as well as in a field setting. They were asked to work on a short version of an established intelligence test in its usual pen-and-paper version as well as a computerized form of its parallel form. The digital version was administered on the participant's own device and/or on a standardized smartphone. The results are analyzed regarding measurement invariance and construct validity, as well as item characteristics. Implications of using smartphones for ability assessment are discussed.

### **Social Roles and Personality in Later Life**

### Anna E. Kornadt

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Despite considerable stability of the Big Five personality traits, there is evidence for personality plasticity and change across the lifespan. In younger years, the investment in social roles, such as entering worklife or starting a family has been shown to drive personality change. With regard to personality in later life, the investigation of social roles has so far been neglected. A questionnaire was developed to assess a large number of social roles that can be assumed in the second half of

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life. N = 306 participants aged 50 to 86 years reported on their social roles and rated their personality traits. Results show that assuming and investing in certain social roles (e.g. friend, retiree, volunteer) mediated the effects of age on the Big Five, especially for the oldest participants and in the domains openness and extraversion. The findings support the importance of social roles for personality also in later life.

### Narcissistic and attractive, the unbeatable combination for dating?

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Does the combination of grandiose narcissism and physical attractiveness lead to dating success? We analyzed three datasets (Study 1: N = 124; Study 2: N = 79; Study 3: N = 397) and tested the hypothesis that grandiose narcissism has a positive effect on dating success, if it is combined with high physical attractiveness. Narcissism was assessed via self-ratings, physical attractiveness by observer-ratings, and dating success directly through dating partners' evaluations. The results consistently show a positive effect of physical attractiveness and no significant effect of grandiose narcissism. The expected interaction effect between narcissism and high psychical attractiveness occurred in two of three studies. The question of whether the combination of grandiose narcissism and physical attractiveness leads to dating success, cannot be definitively answered by the available datasets.

How being perceived as a likeable person: Correspondences between different human behaviors and liking ratings in first-encounter conversations

#### Sascha Krause

University of Leipzig

In different social situations, it may be beneficial to make a likeable impression on unacquainted others (e.g., job interview, first date, apartment search etc.). In a study with 139 unacquainted same-sex participants (69 women, 70 men) - assigned to groups of four to six members - it was examined how different human behaviors correspond to liking ratings in first-encounter conversations. After arriving at the laboratory, participants were asked to briefly introduce themselves in front of the other group members. Then, they were asked to provide liking ratings of all other members (round-robin design). Next, the participants assigned themselves dyadically and had a videotaped 5-min conversation with every other group member about topics of their choice (e.g., Funder, Kolar, & Blackman, 1995). After the last conversation, participants were asked again to provide liking ratings of each group member. After completing the study, independent observers evaluated different human behaviors during the first encounter conversations. Employing Social Relations Models, it was found that actor effects of eight human behaviors (extraverted, open, agentic, communal, friendly, boastful, humorous, and imitative) correspond positively with target effects of liking ratings. It was also found that actor effects of neurotic and calm behaviors were negatively related to target effects of liking ratings in first-encounter conversations. Implications of these findings are discussed.

#### The discriminatory potential of modern recruitment trends

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Purpose: Research on labor market discrimination points to robust ethnic discrimination, especially in the pre-selection of personnel. But many companies need to change their recruitment strategies in times of labor shortages. Recruitment trends like CV screening on professional social media, active sourcing, and assigning recruitment to private recruitment agencies might help to find suitable

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candidates. The question of how relevant discrimination is in this modern recruitment environment is still an open one.

Methodology: We conducted eight qualitative expert interviews with different types of recruiters. Subsequently, we conducted a content analysis (Mayring & Fenzl 2014) to discover whether modern recruitment trends have potential drivers for discriminatory pre-selection.

Results: We found that the recruitment trends active sourcing and recruitment assignment are sustainable for discriminatory pre-selection. Our analysis also identified three sources of discrimination in personnel pre-selection: the recruiters' own attitudes towards certain job candidates, the explicit managers' orders to exclude job candidates with specific personal characteristics, and the recruiters' impressions regarding the company's preferred candidates. It seems that the managers' orders and the recruiters' impressions are the biggest drivers of discrimination in personnel pre-selection.

Limitations: Our analysis is limited to modern recruitment trends. Additionally, recruitment environments are changing quickly and strongly depend on labor market characteristics. Implications: Our findings show that current German legislation—for instance, the German Equal Treatment Act (GETA) and the work council's rights—is not sufficient to protect job candidates from discrimination.

Originality: Our study provides in-depth information on the sensitive topic of discrimination in recruitment.

#### Validation of a first version of the new NIPS-Aggression Process Scale

#### Jonathan Kuhlmann; Gabriela Blum

TU Dresden

A new questionnaire for assessing dispositional aggression was developed, based on the Nonlinear Interaction of Person and Situation (NIPS) Process Model: The NIPS Aggression Process Scale. This scale measures the disposition for aggressive behavior via in process parameters. According to the NIPS Process Model the development of aggressive behavior depends on four process parameters: Threshold, Bias, Avoidance and Variability. For each of these parameters four items were created. The impact and the psychological interpretation of the NIPS processes are based on psychophysical findings. As in psychophysics the NIPS Model suggests that behavior can best be described with logistic functions as opposed to linear functions. The process parameters stem from the mathematical parameters of a logistic function: The intercept corresponds to the threshold (e.g. for perception of provocative stimuli). The lower asymptote corresponds to the person's bias (e.g. a basic aggressive attitude). The upper asymptote corresponds to avoidance (e.g. inhibition of aggressive behavior). The slope of the function corresponds to the variability (e.g. how erratic a person becomes aggressive). In a first validation study N=140 participants online completed the new questionnaire and four established scales for aggressive dispositions. The results are discussed on the basis of the factor structure (Do the NIPS Aggression Process Scale Processes measure distinguishable influences on behavior?), the convergent validity (How are the results of the new scale related to the results of the established scales?) and the incremental validity (Can the NIPS Aggression Process Scale measure something we were not able to measure before?).

#### (A-)typical personality manifestations in daily life of older adults

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Prior research has suggested that younger adults exhibit substantial variability in personality manifestations in their daily life. However, research of daily personality manifestations at later life stages such as older adulthood is sparse. Do older adults also show variability in personality manifestations in daily life, or do they rather show stability? To address this question, we used data from the ambulatory assessment study RHYTHM (Realizing Healthy Years Through Health

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Maintenance) to assess personality-related experiences and behaviors across 10 days. The sample consisted of 136 healthy older adults (M = 70.45, range = 60–91, 41.2% male). The results revealed a differentiated picture of personality manifestations in daily life of older adults. While older adults showed relative stability with respect to the intra-individual mean, they also exhibited a sizeable amount of intra-individual variability and diversity in personality manifestations across 10 days. Multilevel modeling showed intra-individual associations between experiences and corresponding behaviors in daily life. These findings offer new insights into personality manifestation of older adults in daily life, suggesting that it is rather typical that personality manifestations are subject to short-term variability in older adulthood.

You can't always get what you want: The role of goal importance, goal feasibility and momentary experiences for volitional personality development

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Most adults set and pursue goals to change certain aspects of their personality, which emphasises the active role of individuals in personality development across the lifespan. However, previous studies with young adults provided mixed evidence on whether such change goals can be successfully implemented and the studies neglected goal characteristics as moderating factors. In addition, initial evidence suggests that experiencing trait-relevant situations and states may reflect key components of successful volitional personality change. To address these limitations, the current study examined associations between change goals and changes in self-reported Big Five traits assessed four times across two years in 255 younger (Mage = 21.57 years) and 127 older adults (Mage = 67.76 years). We included perceived feasibility and importance of change goals as potentially moderating factors. We extended trait assessments by multiple waves of daily diaries (M = 43.9 days) to investigate the role of trait-relevant momentary situations and states in volitional personality change. Contrary to our hypotheses, results from multilevel structural equation modelling showed that neither stronger change goals nor higher goal importance or feasibility were consistently associated with stronger trait change, likely due to inconsistent associations with momentary situations and behaviours: Stronger goals to change extraversion and emotional stability predicted more extraverted behaviour, yet more insecure behaviour, respectively. Higher importance but not feasibility of change goals was partly linked to experiencing trait-relevant situations and states for conscientiousness, agreeableness, and emotional stability. We integrate our results into previous findings on volitional personality development.

#### Prevalence of dyslexia depends on how test norms were calculated

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To compare an individual's performance with a reference sample, instruments measuring schoolrelated and cognitive abilities need to establish norm values. Common definitions of dyslexia involve
both reading/spelling achievement and discrepancy between reading/spelling scores and non-verbal
intelligence. Surprisingly, the specific method for calculating percentile ranks (PR) from raw scores
differs among instruments: Here, some base their reported norms on cumulative percent (cumPR)
with lower OR equal raw scores, rather than treating raw scores as intervals and computing midinterval PR (Intervall-Mitten-Prozentrang; IMPR) before converting PR to T- or IQ-scaled equivalents.
Present analyses demonstrate how the applied PR method affects case identification and prevalence
rates of dyslexia. For a reference sample of 3521 third- or fourth-graders, both cumPR and IMPR were
calculated from their raw scores in online tests measuring spelling (WRT3/4), reading (WLLP-R), and
non-verbal intelligence (CFT20-R), and then transformed to normalized T equivalents. Diagnostic
criteria for dyslexia were twofold: Poor spelling/reading (T < 40) and a 1.2 sd discrepancy (T-score
difference of at least 12) between spelling/reading and intelligence. Dyslexia prevalence rates were
similar whenever reading/spelling and intelligence tests based their norms on the same procedure

(cumPR/cumPR or IMPR/IMPR). However, if instruments differed in the applied PR method (cumPR/IMPR or IMPR/cumPR), dyslexia rates varied by nearly 2 %. Since the diagnosis of dyslexia has wide-ranging consequences, these observations call for careful consideration of the specific methods applied in the administered instruments. Test authors are recommended to apply only the IMPR method and to report details of the norming procedures they used.

### 41 Metacognitive Knowledge in Patients with Borderline Personality Disorder

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Studies have shown that mental disorders are associated with impairments in metacognitive knowledge and in the processing of self-related information. Patients with Borderline Personality Disorder (BPD) rate positive and neutral self-referential words more negatively than healthy people, which is probably due to their negative view of themselves. Additional factors often disturbed in patients with BPD, like self-esteem and insight into interpersonal relationships, may further impact on such judgments and remained to be elucidated. Therefore, the aim of this study was to investigate the cognitive processing of self-related information focusing on two effects, the Self-Reference Effect (SRE) and the Mnemic-Neglect Effect (MNE). Further, and with regard to a dysfunctional insight into relationships, we aimed at investigating the influence of perspective change on these effects. Thirty patients with BPD and a healthy age matched control group performed a standard trait judgment paradigm taking two appraisal perspectives (1st, 3rd person) and a recall task to assess the SRE and MNE. Further, besides clinical measures, self-esteem and self-compassion were assessed using standardized questionnaires. Data collection for patients is currently completed and will be finished shortly for the control group. Preliminary results revealed a similar pattern of SRE and MNE in both groups and, within the groups, during both perspectives. Between-group results comparing the effects and appraisal perspectives as well as influencing factors will be presented and discussed. We assumed that in the 1st person perspective patients attribute significantly more negative and less positive characteristics to themselves compared to controls due to their low self-esteem.

### The ability to lie and its relations to the dark triad and general intelligence

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The dark triad of personality (D3) – consisting of psychopathy, machiavellianism and narcissism – is commonly conceived to be related to manipulative and deceptive abilities and is often regarded as an effective exploitative behavioral strategy. Some authors argue that the success or failure of the manipulative behaviour of D3-individuals is moderated by other variables e.g., intelligence. In our study we recruited participants that prepared three short stories about a personal incidence in advance: two had to be true and one had to be non-factual. The subjects told their stories in a laboratory setting while being videotaped. The SRP-4, the MACH VI and the NARQ were used to measure the dark triad. General intelligence was assessed with the Wechsler Adult Intelligence Scale - Fourth Edition. After all stories were videotaped raters judged which of the three stories was the non-factual one. Subsequently, the participants who were able to delude many raters with their stories gained a high "lying ability score". We tested the hypotheses if (a) the dark triad was related to lying ability, (b) intelligence was related to lying ability and (c) the D3-lying-ability-relation was moderated by intelligence. First results indicated that neither the dark triad nor general intelligence are meaningfully related to lying ability. Our results challenge the view that the D3 is an adaptive set of personality traits that enables individuals to exploit their social environment in an effective way. Although D3-individuals might need high manipulative skills, it is unclear whether they actually have them.

## 43 Dimensionality of the abbreviated version of the Need for Cognition Scale: A Meta-Analytical Structural Equation Model

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Need for cognition (NFC) is usually understood as an individual's "tendency to engage in and enjoy thinking" (Cacioppo & Petty, 1982), which is related to a variety of desirable outcomes in school, academia, and life. The present study contributes to an ongoing debate about the dimensionality of the abbreviated 18-item version of the NFC scale. Followed by a systematic literature review, 43 independent samples (N = 21,080) were identified and analyzed with a fixed-effects Meta-Analytical Structural Equation Model (MASEM). Based on the literature competing measurement models were specified: (a) a single factor model, (b) an acquiescence model, (c) a correlated trait model, and (d) a bifactor model with a nested factor for all negatively worded items. The bifactor model with a strong trait factor and a weak but substantial method factor fitted the aggregated data best, which contributes to the ongoing discussion about the effects of item wording effects in self-report measures in general. On a methodological stance, we also exemplified with the present study a recently introduced method to derive a variance-covariance matrix based on the factor pattern matrix of explanatory or confirmatory factor analyses. Implications of the findings as well as further extensions of the MASEM method are discussed.

### 44 Effects of a classroom-based physical intervention on children's body image

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Body image and how a person perceives, thinks and feels about one's body is complex and highly relevant to physical and psychological health. The prevalence of body dissatisfaction among children is rising and more and more interventions have been carried out to promote a positive body image. One dimension of these interventions is experience-based and involves physical activities. However, studies suffer from limitations such as missing control groups, unstandardized interventions or measures, and most of the existing studies have been experimental or clinical and have not been implemented in school settings. This study examined the effects of a daily 10-minute classroom based intervention over two weeks on children's (N = 148, mean age = 10.1 years, SD = 0.66) body image. In the intervention group (n = 87) children performed together with trained sport assistants of the university a standardized physical intervention with different medium cardiovascular activities and partner exercises. In the control group (n = 61) children were not instructed during breaks. At pre-test intervention and control group did not differ in age, sex, intelligence (CFT-20), and body image (FEW-16) (all p values > .05). Results of the repeated ANOVA and simple effects analysis indicated that body image of the intervention group improved more than in control with small effect size ( $\eta$ 2 = .04). The additional assessed personality traits (SDQ) did not change over time between groups indicating that body image's latent state properties were addressed by the intervention. Further implications of the study will be discussed.

# Development of a Short Form of the Multidimensional Self-Esteem Scale Using Multigroup Confirmatory Factor Analysis

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Since the beginning of modern psychological research, self-esteem has been one of the most studied constructs. Past research however primarily focused on one approach to measuring self-esteem (i.e. global self-esteem). The paucity of empirical research regarding multidimensional assessment of self-

esteem is surprising given that the predictive power of self-esteem improves when it is measured at the appropriate level of specificity vs. the global level. In accordance with the current plea for the assessment of domain-specific multidimensional constructs, we present the development of a short form of the Multidimensional Self-Esteem Scale (MSES; Schütz, Rentzsch, & Sellin 2016). Items were selected by means of exploratory factor analysis and considerations of content validity given a sample of German adults (N = 644, Mage = 47.0). The short scale demonstrated satisfactory internal consistency, factorial validity, and factorial invariance across random split samples. Additional invariance testing across the adult sample and an independent sample of German adolescents (N = 674, Mage = 14.2) indicated factorial equivalence across different age groups. Results from bifactor model analyses examining relations with Big Five personality traits, narcissism and academic achievement supported construct validity in both samples. Psychometric properties indicate that the short version of the MSES is an economic and valid instrument for measuring multidimensional self-esteem in adolescent and adult samples. The short scale is particularly useful in clinical and large-scale research with limited time capacities and demands for reduced workload for participants.

### 46 Overclaiming as an effect of dispositional cognitive exploration

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Overclaiming is the tendency to claim knowledge of factually nonexistent terms and was proposed as a measure of self-favoring response bias. However, attempts to validate the approach provided mixed results with a consistent finding being a positive association with openness to experience. Dunlop et al. (2017) interpreted this association such that overclaiming is the result of dispositional cognitive exploration instead of deliberate self-presentation. In a similar vein, evidence suggests similar processes in overclaiming as in other cognitive biases such as the hindsight bias. The present study (N = 267) aimed to further explore the cognitive exploration account by investigating overclaiming along with different operationalizations of cognitive exploration. Results indicated that the tendency to exhibit stronger overclaiming not only was associated with all self-report measures (positively: Openness to experience, trait curiosity, typical intellectual engagement, tolerance of ambiguity; negatively: Need for cognitive closure), but also with factually better performance on short measures of crystallized intelligence and, most importantly, creativity. In sum, individuals high in overclaiming are best described as being more open, inquisitive, and creative, rather than providing distorted self-reports. Considering that the replicated associations with self-reported trait exploration could be corroborated by performance measures, the interpretation of overclaiming as a measure of self-enhancement and motivated knowledge exaggeration does not appear to be applicable.

#### 47 Convergent and Discriminant Validity of Self-Reported Trait Empathy

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Empathy is a fundamental component of social cognition and interaction with wide-reaching consequences for success within the personal and professional domain. Trait empathy is typically assessed using self-report questionnaires. This approach is questionable for multiple reasons. On one side, the use of self-report questionnaires with often high face validity is problematic due to the high social desirability of the construct empathy within the general public. Thus, it does not account for social desirability as a potential confounding factor in the assessment of empathy. On the other hand, self-reports overemphasize individuals' self-conceptions of their own interpersonal competencies and neglect objective ability-related components of the empathic process, like e.g. emotional recognition and emotional understanding. Considering these constraints, it is essential to evaluate the convergent and discriminant validity of self-reported trait empathy with respect to

emotion recognition, emotional understanding, and social desirability. To examine this question, we administered two of the most prevalent self-report-based trait empathy questionnaires (Interpersonal Reactivity Index, IRI, and Toronto Empathy Questionnaire, TEQ) as well as an emotion recognition test (ERI), an emotional understanding test (MSCEIT), two self-report measures of social desirability (BIDR, KSE-G) and a self-report-based self-esteem questionnaire (RSES) to a sample of 51 university students. The results are discussed in terms of their implications for potential constraints in the interpretation and application of self-report-based empathy instruments.

### Difficulty of sample tasks and the threat of instruction texts: Effects on test anxiety and on performance of subjects in performance tests

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Test anxiety is a strain on those affected and can prevent them from achieving their full potential (Richardson, Abraham & Bond, 2012). Since test anxiety is guite common (Pixner & Kaufmann, 2013), is advisable to create test situations in a way that reduces test anxiety. Situational test anxiety is influenced by test instructions (Zeidner, 1998), which usually consist of an instruction text and a sample task. Empirical evidence has shown that evaluative formulated instruction texts can cause test anxiety and reduce performance (Coy, O'Brien, Tabaczynski, Northern & Carels, 2011). A possible influence of sample tasks has been neglected and has been therefore subject of our study. We assume that both (H1) evaluative instructions and (H2) sample tasks with an empirically higher difficulty raise test anxiety and have a disadvantageous effect on performance. Our hypotheses were examined by assigning N>100 subjects to one of four conditions (easy vs. difficult sample tasks, evaluative vs. non-evaluative instructions). Pre-existing differences in test anxiety and performance were measured by a performance screening test (GKKT, Ulfert, Ott, Bothe and Kersting, 2017) as well as a test anxiety questionnaire (TAI-G XU, Wacker, Jaunzeme & Jaksztat, 2008) and both were taken into account. In the main test, the subjects received one instruction, several sample tasks and indicated their perceived test anxiety (STAI-SKD, Englert, Bertrams & Dickhäuser, 2011) before solving a subtest of the WIT-2 (Kersting, Althoff & Jäger, 2008). We will discuss the results with regard to possible indications for the practical preparation of test instructions.

## "You Can't Always Get What You Want" The Role of Personality in Translating Aspirations Into Occupational Attainment

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Recent sociological research highlights occupational aspirations as a strong predictor of occupational attainment in the training and labour market. But who is able to translate their aspired occupation into actual attainment? Psychological research suggests that personality traits such as the Big Five might play an important role in this regard. However, previous research has largely neglected the interplay between personality and occupational aspirations in the process of occupational attainment. Using data from the National Educational Panel Study (NEPS; N = 2.478 students attending intermediate secondary school), our present study investigates (a) whether Big Five personality traits predict the attainment of adolescents' occupational aspirations over and above socioeconomic status, gender, migration background, and cognitive ability; and (b) whether their potential effects are mediated by aspirations and school grades. To operationalise the attainment of aspirations, we calculated the discrepancy between the aspired occupation and the actually attained training position (aspiration–attainment gap; AAG). Path analyses revealed both direct effects of personality traits on the AAG—even beyond all covariates—and indirect effects through aspirations. Students scoring higher in Openness tended to have a higher AAG because of their higher

aspirations, whereas students scoring higher in Agreeableness showed a lower AAG, even though they had higher aspirations. These findings highlight the previously underestimated role of personality traits in translating aspirations into actual occupational attainment.

### **Determinants of Being Perceived as Competent in Small Group Discussions**

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In small group discussions individual performance has an unexpected small impact on the group members' evaluations of performance (Sanchez-Cortes & Aran, 2012). What explains the mismatch between a person's actual individual performance and the others' perception of a person's performance? Which determinants influence the others' performance evaluation additionally to the actual performance of the evaluated person? The present study compares the impact of (a) actual individual performance, (b) verbal and nonverbal communication behavior, and (c) interpersonal attraction on the evaluations of individual performance of group members and external observers. In a laboratory study N = 164 participants were assigned to 41 groups, each consisting of four samesex members. Participants completed a measure of interpersonal attraction and individually solved an established rational problem. Afterwards, the group members worked together to find a common solution for the rational problem. During the group interaction, the subjects' communication behavior was recorded on videotape. Then, the participants evaluated each other's performance in a Round Robin Design. Also external experts, who observed the discussion from outside were asked to evaluate the performance and interpersonal attraction of the discussing persons. All three investigated determinants predicted the perceived performance of both group members and external observers. Furthermore, in both settings the perception of individual performance in group discussions was based less on the actual performance of individuals, but more on the quantity of communication behavior. These results suggest practical implications for both persons to be evaluated and evaluating persons.

### It's all about the feeling: Applying control-value theory to emotions in higher education

### **Pascale Stephanie Petri**

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Emotions occur in all facets of our lifes. One approach to explain the emergence of emotions in achievement situations is control-value theory (Pekrun, 2006): Emotions are determined by the appraisal of (1) control and (2) value. That emotions in turn can influence behavior has been subject to a huge body of literature so far (e.g. Pekrun & Stephens, 2010). Especially when it comes to anxiety in achievement situations, there is even meta-analytic evidence for a decrease in performance (Richardson, Abraham & Bond, 2012). Moreover, the negative association between anxiety and satisfaction is well known in the vocational context (Faragher, Cass, & Cooper, 2005). While achievement emotions are extensively researched especially in secondary education, emotions in higher education haven't attracted that much attention yet. Especially the relation between emotions in higher education and student satisfaction (a valid predictor for dropout intentions) lacks a detailed exploration. We therefore conducted a longitudinal study with N > 300 freshmen over 9 months. The control-value model we tested fitted our data well. In addition, anxiety predicted satisfaction which in turn predicted dropout intentions. Our findings highlight the importance of achievement emotions in higher education. Given that our sample is not representative for freshmen in general, results should be generalized with caution. Nevertheless, based on these findings, we suggest that all stakeholders within the context of higher education should pay attention to students' achievement emotions. In case of high levels of anxiety, interventions could probably help preventing highly anxious students from dropping out.

### Never good enough: The relation between the Impostor Phenomenon and multidimensional Perfectionism

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The impostor self-concept is a widespread phenomenon among professionally successful individuals whose ability to accept and enjoy their competences is impaired. Impostors always feel they are deceiving their environment with their success and are afraid of being exposed one day as soon as their environment learns of their alleged incompetence. Typical characteristics of the Impostor Phenomenon described by Clance (1985) show a remarkable conceptual similarity to the personality construct of perfectionism. Thus, the present study aimed to investigate how the impostor selfconcept is related to various facets of the personality trait of perfectionism. 274 subjects of a mixed student-employee sample participated in an online study, including the Impostor Phenomenon Scale (CIPS; Clance, 1988), the Frost Multidimensional Perfectionism Scale (FMPS; Frost, Marten, Lahart, & Rosenblate, 1990), and the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991). Stepwise regression analyses were conducted to determine which dimensions of perfectionism can best predict the impostor self-concept. The perfectionism dimensions doubts about actions, concern over mistakes (Frost et al., 1990) and socially prescribed perfectionism (Hewitt & Flett, 1991) proved to be the best predictors of the impostor self-concept. Taking into account Stoeber et al.'s (2007) twodimensional model of perfectionism assessing striving for perfection and negative reactions to imperfection, these results suggest that indicators of "perfectionistic concern" best predict the impostor self-concept. In contrast to functional perfectionistic strivings, individuals with impostor self-concept are thus characterized by dysfunctional maladaptive facets of perfectionism. Those maladaptive facets presumably contribute to impostor tendencies of high performers.

### Test-Retest Reliability is not a Measure of Reliability or Stability

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We argue that the test-retest-reliability, which is the correlation of two measurements of the same construct with the same sample (sometimes referred to as repeatability) is by itself not an appropriate measure for reliability or for stability. However, coupled with an actual measure of reliability such as Cronbach's Alpha, this correlation can be used to estimate a construct's stability using a procedure similar to the attenuation correction.

### Vulnerability and Resilience Among Gelotophobes: Exploring Life and Career Paths in Switzerland

#### Willibald Ruch<sup>1</sup>,<sup>2</sup>; Alexander Stahlmann<sup>1</sup>

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The fear of being laughed at and appearing ridiculous to social partners (i.e., gelotophobia) has been firmly rooted within the framework of individual differences. Gelotophobes tend to misinterpret genuine joy and laughter as mean-spirited ridicule and report having been bullied more frequently. Next to typically being rather introverted, emotionally unstable and low in openness to experience, they are more likely to report diminished self-esteem and confined social support. These consequences could also reflect in inadequate coping strategies at the workplace and gelotophobes – eventually – quitting their jobs. However, some gelotophobes seem to be more resilient than others. Within the project "Career Paths" endorsed by the Swiss National Centre of Competence in Research LIVES, we explored the dynamics that contribute to resilience among gelotophobes. Based on a

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representative Swiss sample comprising N = 2444 participants, we employed longitudinal cluster analyses (KmL; k-means-longitudinal) to investigate multidimensional trajectories of life and job satisfaction as a function of gelotophobia, social support, perceived stress, and perceived workplace bullying over the course of 6 consecutive years. Our findings suggest that life and career paths reflect in three distinguishable patterns with gelotophobia being primarily related to the two less advantageous patterns marked by lower satisfaction. Yet, analyses among gelotophobes only revealed that perceived social support, stress, and workplace bullying account for further differences regarding the cluster affiliation. Thus, we argue that either considering or changing these factors is key to support gelotophobes coping with adversity at the workplace.

# The Longitudinal Interplay Between Loneliness and Acculturation Behavior in Student Sojourners

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Previous research corroborated associations between social experiences and loneliness across the life span (e.g., Luhmann & Hawkley, 2016). Hence, studying abroad far away from family and friends may put young people at a particular risk to experience loneliness. On that account, behavioral strategies to deal with the challenges of the new living environment are expected to have important implications for the development of loneliness over the course of an educational stay abroad. With the present study, we addressed a research gap by investigating adolescents' experience of loneliness over the course of a school year abroad as well as the longitudinal interplay between loneliness and the sojourners' host-oriented and home-oriented acculturation behavior. To that end, we analyzed data from N = 1,299 student sojourners who participated in the study "Mobility and Acculturation Experiences of Students" (MAPS) using latent growth curve models and cross-lagged panel models. Participants were queried four times before and during the sojourn using onlinequestionnaires. Our results showed that loneliness increased during the time of the departure and the first weeks abroad but decreased again afterwards. The pre-departure level of loneliness predicted the level of loneliness during the early stages of the sojourn but not its development over the course of the school year abroad. Host-oriented acculturation behavior revealed a direct (negative) effect on loneliness (i.e., decreased loneliness) whereas home-oriented acculturation behavior increased loneliness by a time-lagged indirect effect via host-oriented acculturation behavior. Implications for acculturation and loneliness research and practical inferences for the support of sojourners are discussed.

# Individual differences in P300 and MFN during deception: Effects of gender, Machiavellianism and witnessing vs. committing a mock-crime

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Are there certain personality characteristics that go along with different cognitive processing of deception? In the present study we analyzed the modulating effect of gender, Machiavellianism, and the role of the subject (witness vs. culprit) on P300 and MFN amplitudes. The P300 and MFN indicate stimulus salience and response conflict, respectively. A mock-crime scenario took place during a social interaction: Some participants were offered a candy bar and either choose to eat (n=31) or decline it (n=43). Other participants (n=34) witnessed one examiner eating the candy bar. Afterwards it was suggested that the candy bar was not meant for them. During a concealed information test, participants saw the candy bar (probe) and similar items they had not seen during the examination (irrelevants) and should indicate that they did not recognize them. P300 amplitudes were more positive and MFN amplitudes more negative for probe compared to irrelevant items, indicating that seen items were more salient and deception accompanied by response conflict. For women a larger

difference between P300 amplitudes occurred, revealing that seen probe items were more salient for them compared to men. Especially for female witnesses, response conflicts during deception diminished, as MFN amplitudes for probe and irrelevant items did not differ for them. Moreover, modulating effects of Machiavellianism on P300 and MFN amplitudes were found for women in the different conditions. Implications of the results for the forensic context and the importance to consider individual differences in deception studies will be discussed.

### Compassion just for others? A study on the correlation between Self-Compassion and Conformity to Feminine Norms

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Self-Compassion describes a loving and caring relationship with as well as a positive attitude toward oneself even in difficult life situations (Neff, 2003). Conformity to Feminine Norms is described by Mahalik et al. (2005) as holding on to societal rules and standards which determine what femininity is. Those rules and standards are reflected in individual feminine behaviors, feelings and thoughts. We hypothesized that women with less Self-Compassion are more likely to show stronger Conformity to Feminine Norms. In an online survey, 362 women were asked about their Self-Compassion, Conformity to Feminine Norms and Self-Esteem. We found a negative correlation between Self-Compassion and Conformity to Feminine Norms. After a hierarchical regression analysis, we also found negative  $\beta$ -coefficients for the Conformity to Feminine Norms-Scale as well as for 3 of the 9 subscales. That means women with a low amount of Self-Compassion are more likely to show Conformity to Feminine Norms and therefore are more likely to show compliance with normative standards for women. We propose to introduce Self-Compassion in prevention but also in intervention work and therapy, since this construct can lead, especially for women, to questioning feminine norms and bringing the focus back to oneself and one's own needs.

### Am I (not) perfect? Fear of failure mediates the link between vulnerable narcissism and perfectionism

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Theoretical accounts and empirical research previously pointed toward a relationship between perfectionism and narcissism. With both perfectionism and narcissism being regarded as multidimensional constructs, elucidating their relationship has yet proven to be empirically challenging. In an attempt to clarify the narcissism/perfectionism link, a recent meta-analysis suggested that two core variants of trait narcissism, narcissistic grandiosity and vulnerability, share a common relation to perfectionistic self-promotion, while they seem to be differentially linked to other types of perfectionism, such as other-oriented or socially prescribed perfectionistic cognitions (Smith et al., 2016). Potentially mediating factors that may help explain these differential relationships of grandiose vs. vulnerable narcissism to perfectionism include fear of failure (FF) and failure avoidance tendencies (FA). Therefore, the current study was conducted to investigate the mediating role of FF and FA in the manifold narcissism-perfectionism relationships. In an online study (N=233, 65 percent female), various facets of FF were measured via self-report, whereas FA was assessed experimentally through response latencies in a newly designed Approach-Avoidance Task. First, findings replicated the link (1) between narcissistic vulnerability and socially prescribed perfectionism as well as (2) between narcissistic grandiosity and other-oriented perfectionism as reported by Smith and colleagues. Second, while the former relationship appeared to be fully mediated by FF and was further linked to FA, the latter relationship (between narcissistic grandiosity and other-oriented perfectionism) was not. Implications on the nature of the narcissism-perfectionism relationship and future research questions will be discussed.

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#### **Can Beliefs in Justice Predict Corrupt Behavior?**

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The belief in a just world has been found to be related to rule breaking behavior. However, research has yet to determine whether the same relation holds for corrupt behavior. The current study focused on identifying whether the belief in a just world is a factor that predicts bribery behavior. We hypothesized that people with a weaker belief in a just world would be more likely to report that they had given a bribe compared with people with a strong belief in a just world. A retrospective design was used to conduct a study in Lithuania. Belief in a just world was measured with two scales for assessing personal and general beliefs in a just world. We measured bribery behavior by asking participants (N = 316) to report how many times they had given a bribe during the past 5 years. The results showed that a personal belief in a just world predicted bribery behavior, whereas a general belief in a just world did not. We discuss implications for further studies.

### Zusammenhang von Self-Compassion und umweltbewussten Verhaltensweisen

Janine Teubner; Nancy Tandler; Lars-Eric Petersen

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Self-Compassion (SC) als Persönlichkeitseigenschaft ist definiert als liebevoller und freundlicher Umgang mit sich selbst in Situationen persönlicher Kämpfe oder Schwächen, wobei geringe Ausprägungen von SC mit Selbstkritik, Isolation oder Überidentifikation einhergehen (Neff, 2003b). Das Wissen um Schwächen als Teil der menschlichen Natur führt zu einem Verbundenheitsgefühl zu anderen Menschen und lässt eine integrative Perspektive der eigenen Fehlerhaftigkeit entstehen (Neff & Pommier, 2013). Umweltbewusste Personen zeigen eine erhöhte umweltbewusste Besorgnis (Schultz, 2000) und Empathie (Lee & Holden, 1999). Zudem sind ihre Verhaltensweisen von umweltbewusstem Altruismus und nicht von egoistischen Werten beeinflusst (Schultz & Zelezny, 1998). Die Aspekte Verbundenheitsgefühl und Empathie können als verbindende Komponenten zwischen SC und Umweltbewusstsein herausgearbeitet werden und führen zu der Annahme, dass bei erhöhter SC ebenso erhöhte umweltbewusste Verhaltensweisen (UBV) vorliegen. Erwartet wurden folglich positive Zusammenhänge von SC mit UBV, umweltbewussten Einstellungen, gesundheitsförderlichen Verhaltensweisen und impliziter und expliziter Naturverbundenheit. Mithilfe eines Onlinefragebogens wurden N = 88 Studierende befragt (w = 69.3%, m = 27.2%, Alter: M = 23.87, SD = 3.97). Die angenommenen Zusammenhänge konnten anteilig bestätigt werden. Lediglich zwischen SC und umweltbewussten Einstellungen sowie impliziter Naturverbundenheit ließen sich keine signifikanten Korrelationen feststellen. Außerdem konnte die SC-Basiskomponente Verbindende Humanität als Prädiktor für UBV ermittelt werden. Diese Beziehung zwischen SC und UBV wurde in diesem Kontext erstmalig extrahiert. In Bezug auf eine höhere Gewichtung von adaptiven im Vergleich zu maladaptiven SC-Basiskomponenten sollten die verschiedenen Aspekte von SC im Rahmen von UBV in zukünftigen Studien näher untersucht werden.

### 61 Cohort Profile DDR-PSYCH - East German past and mental health: risk and protective factors

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After almost 30 years since reunification, the former German Democratic Republic (GDR; often known in English as East Germany; in German DDR) and its socio-political system have remained a point of reference for the analysis of societal, social, and individual processes in Germany. There is a lack of knowledge about the on-going impact of the East German past on the German general population.

Little is known how structural GDR-specific circumstances might have shaped personality traits and how the interaction of personality traits with East German past affects current mental health. In order to shed light on these questions, the interdisciplinary research group DDR-PSYCH was established lead by researchers of the University Medical Center in Mainz. Data of the Gutenberg Health Study (GHS), the Study of Health in Pomerania (SHIP), the German Socio-Economic Panel (SOEP), the Robert Koch Institute (RKI), and the Independent Service for Survey Research, Methodology and Analysis (USUMA) will be analyzed. The age range of subjects in the study population is 14 to 99 years, covering several generations and encompassing the entire spectrum from adolescence to adulthood. In total, about 83,000 cases will be subjected to longitudinal analysis and 67,000 cases to cross-sectional analysis. The project aims to identify risk and protective factors (i.e. personality traits) in individuals who lived in the former GDR and to analyze pathways for the differences found between citizens of East and West Germany. Confounders such as measurement inequivalence of questionnaires and domestic migration will be taken into account.

## Tell me what you'd do and I'll tell you how evil you are: Development of a Situational Judgment Test for measuring the Dark Triad of Personality

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In Situational Judgment Tests (SJTs) applicants confronted with critical job-related scenarios have to choose their preferred response option to handle the situation. The popularity of SJTs in personnel selection is due to the fact that they are a valid predictor of job performance and show incremental validity over and above traditional predictors of job performance. However, in many cases uncertainty exists about what SJTs are exactly measuring. Therefore, newer studies focus on a more construct-oriented development of SJTs. The availability of construct valid SJTs offers new perspectives for research. For example, Kasten, Freund, and Staufenbiel (2018) were able show that a SJT measure of conscientiousness was less susceptible to faking compared to the corresponding NEO-FFI scale. Building on the construct-oriented approach we developed a SJT which assesses the Dark Triad of personality (narcissism, Machiavellianism, and psychopathy). The aim of the study was to examine the psychometric quality of the new SJT. A sample of 224 professionals (60.7% male) completed the SJT, a corresponding self-report measure (Short Dark Triad, SD3), and an impulsivity scale (Scale Impulsive Behavior). Exploratory and confirmatory MTMM analyses indicate that there is evidence for convergent validity of the new measure. Evidence for discriminant validity is weaker. Furthermore, the correlations between the impulsivity scale and the SJT show a clearer support for construct validity compared to the self-report measure. Results are discussed with regard to construct and method.

### Know Thyself - The Importance of Adequate vs. Inadequate Self-assessment of Relevant Skills in the Preference of Health Information Sources

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Autonomous seeking as well as adequate understanding of health information are an important basis for informed decision making in case of health problems. The key skills in this context are health information literacy (HIL) and general cognitive ability (CA). Consequences of an adequate vs. less adequate assessment of one's own abilities for everyday decisions are substantial, but have not yet been investigated in the context of health information seeking. In preliminary analyses, we found a differentiable effect of HIL and CA on the preference of properties of health information sources (expertise, interaction, accessibility). In explorative analyses, we examine differences in the predictive value of self-assessment and performance measures of HIL and CA. We also consider the effects of over- and underestimating one's own abilities with respect to the preference of different source properties. N = 283 individuals completed a self-assessment questionnaire and a performance test to assess HIL and CA. Preference for certain properties of health information sources was assessed

using a self-constructed questionnaire. Using response surface analyses, we found specific effects of self-assessed and objectively measured skills as well as of an interaction of these measures (indicating an over- or underestimation of ability). An underestimation of HIL leads to the preference for highly interactive sources. An over- as well as an underestimation of CA leads to the preference for low expertise sources. In addition to one's actual ability, perceived ability as well as a potentially resulting under- or overestimation play an important role.

### 64 Studying the Associations Between Adult Playfulness and Indicators of Sexuality

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Adult playfulness is an understudied individual differences variable that describes the ability to (re-) frame situations in a way such that they experience them as entertaining, stimulating and/or interesting. A recent structural model consists of four facets; namely, other-directed, lighthearted, intellectual, and whimsical types of playfulness (OLIW-model; Proyer, 2017). Current research shows differential relations between the facets and how people behave in intimate relationships (e.g., relationship satisfaction, perceived intimacy, successful communication between partners, and sexual behaviors). We extend previous research by studying the associations between the four facets and two narrow traits toward sexuality that describe experience seeking and risk taking (Sexual Sensation Seeking) and socio-sexual attitudes, desires, and behavior. To address this aim, we collected data from 291 adults (65.6% female; M = 26.8, SD = 8.6 years), who completed self-report measures of the variables of interest. Our analyses showed substantial differences in the correlations for the men and women. Overall, Whimsical playfulness was the best predictor of the sexuality variables ( $r \le .32$ ), explaining up to 12% of the variance. For the remaining facets, we found that men's Lighthearted playfulness was positively related to sexual sensation seeking and socio-sexual attitudes. Other-directed and Intellectual types of playfulness existed widely independently from sexual sensation seeking and socio-sexuality ( $R^2 \le .03$ ). Theoretical and practical implications are discussed.

### You can't please everybody - Evaluation of questionnaires in Online Self-Assessments in relation to personality

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Online Self-Assessments (OSAs) are intended to help prospective students to make the right choice for their studies - anonymously and free of charge. While some OSAs aim at providing a general orientation, others have a confirmatory approach: These subject-specific OSAs provide feedback, if one fits to a specific field of study. Many subject-specific OSAs do not just simply reveal information on the subject: they encompass questionnaires and tests. The University of Giessen offers nine different subject-specific OSAs that include questionnaires on study-related personality traits, based on the Five-Factor Model (Costa and McCrae, 1991) and study-related interests, based on the RIASEC-Model (Holland, 1977), and a cognitive ability test (GkKT, Ulfert, Ott, Bothe and Kersting, 2017). By now more than 900 users have completed the OSA and the voluntary internal evaluation. The evaluation includes questions whether and which parts of the OSA can be experienced as helpful as well as questions on the motivation of use. This contribution brings together the results of users' personality profiles and their evaluation ratings. Key questions of the analyses were: Who gives a positive evaluation? Are there differences in the evaluation between users with different personality profiles? Can this be generalized for all OSAs at the University of Giessen? As expected, users scoring higher in agreeableness and conscientiousness evaluated more positive on average. Detailed analysis however revealed different evaluation patterns for the respective OSAs. Based on our findings, we make recommendations about the target group-oriented design of OSAs.

### Higher intelligence is associated with more effective adaptation of brain activity to cognitive demands

**Rebekka Weygandt**; Rebecca A. Mayer; Christian J. Fiebach; Ulrike Basten *Goethe University Frankfurt am Main* 

A prominent theory on the neural basis of human intelligence states that brains of more intelligent people are more efficient, i.e., that more intelligent people solve a given cognitive challenge with less brain activation. Empirical evidence for this neural efficiency hypothesis of intelligence is inconclusive as previous studies have associated intelligence with both weaker and stronger brain activation to cognitive challenges. We present a new study on the role of task difficulty as a potential moderator of the association between intelligence and brain activation. For 63 healthy adult participants, we used fMRI to measure brain activity during a decision making task with five levels of difficulty. Intelligence was assessed with a matrix reasoning test (BOMAT-Advanced). In two brain regions, we observed an interaction of intelligence and task difficulty on brain activation that reflects a moderating effect of difficulty on the association between intelligence and brain activation. In right DLPFC, participants with higher intelligence test scores showed a stronger increase of activity with difficulty than participants with lower scores. Conversely, in DMPFC, higher intelligence scores were associated with a stronger decrease of activity with difficulty. In sum, the current study demonstrates that the brains of more intelligent people can appear as more or less efficient depending on task difficulty. Furthermore, it suggests that in more intelligent people brain activation is more effectively adapted to task demands.

### 67 Comparing ratings of DSM-5 and ICD-11 levels of personality functioning assessed from clinical interviews

**Max Zettl**; Sophie Hauschild; Svenja Taubner; Jana Volkert *Heidelberg University* 

Background: The alternative model for personality disorders of the DSM-5 and the current draft for ICD-11 both comprise a dimensional classification of personality disorder severity. From a theoretical perspective, both models exhibit several commonalities: The DSM-5 model differentiates five levels of personality functioning (PF) operationalized with the Level of Personality Functioning Scale (LPFS). Similarly, the current proposal for ICD-11 also describes diagnostic criteria for five levels of impairment in PF. Moreover, both models operationalize personality disorders in terms of disturbances in self and interpersonal functioning. However, it has not yet been investigated whether these two models converge empirically. Therefore, this study examines the relationship between DSM-5 and ICD-11 PF based on clinical interviews. Methods: The study investigated a sample of 25 patients diagnosed with a mental disorder and 15 healthy adults. All participants were examined with the Semi-Structured Interview for DSM-5 Personality Functioning (STiP-5.1), a validated interview for the assessment of PF according to the DSM-5 model. All interviews were coded by two trained clinicians with the LPFS. Subsequently, 5 psychology students rated the personality disorder severity according to the ICD-11 diagnostic criteria based on audio recordings of the conducted interviews. The students were blind to the DSM-5 model and participant's group affiliation. Interrater reliability for student ratings of ICD-11 personality disorder severity was calculated with an Intraclass Correlation Coefficient. To examine the relationship between DSM-5 and ICD-11 PF, correlation coefficients were investigated. Results/Conclusions: Data analysis is currently in progress. Results will be presented and discussed at the conference.

#### Possible effects of stimulus range on participants accuracy in Dot-Comparison-Tasks

### **Marco Carlo Ziegler**

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Justus-Liebig-University Gießen

The "Approximate Number System" (ANS) is an innate cognitive system which enables humans to estimate and compare numerosity. Humans differ in their ability to estimate numerosities. A typical task to assess people's estimation performance is the "Dot-Comparison-Task" (DCT). In such tasks, one compares two different dot patterns and judges which one contains a higher number of dots. Due to the nature of the ANS, the performance to distinguish between two dot patterns underlies a ratio-dependency, i.e. task difficulty increases as the ratio approaches 1 (patterns are equal in number). This ratio-dependency is a well-known ANS hallmark and not tied to the absolute number of dots. Presumably, because of this hallmark, most studies do not explicitly focus on a possible influence of the absolute number of dots in a ratio (stimulus range) as an additional relevant factor on task performance. We address this issue by manipulating the stimulus range within each ratio in a DCT. We recruited 29 participants to perform a DCT twice (one week test-retest). We conducted each ratio with a lower and a higher number of dots, e.g. ratio 0.75 was presented as 6 to 8 and as 12 to 16 dots. Our results show the typical ratio-dependency but also a significant performance difference between the higher and lower dot condition in both sessions. A lower stimulus range seems to facilitate the accuracy indexed by the percentage of correct trials in each ratio. We discuss and explain this finding and point out implications that might derive from it.