

# VERENIGING VOOR NEDERLANDSE ONTWIKKELINGSPSYCHOLOGIE CONFERENCE 2024 – FULL PROGRAM

Thursday May 30 & Friday May 31 | Dante Building, Tilburg

On behalf of the VNOP board, we welcome you to the 2024 VNOP (Dutch Society for Developmental Psychology) conference organized by the **Department of Developmental Psychology, Tilburg University** on May 30-31, 2024. We are looking forward to seeing you in the **Dante Building** on the Campus of Tilburg University.

This edition of the conference emphasizes the **lifespan perspective**, including symposia and talks on development across all stages of life. Learn how to design an ESM study during the pre-conference workshop on May 29 organized by the Tilburg Experience Sampling Center (TESC), and discuss issues that many of us encounter in teaching during the two teaching events. The General Assembly meeting on Thursday is a great opportunity to hear about VNOP's plans for the future, and the Awards Ceremony on Friday allows us to recognize some outstanding contributions to the field.

In addition to staying updated on the latest developments in the field, the conference offers an excellent chance to connect with colleagues from Belgium and the Netherlands in a relaxed setting. Coffee breaks, lunches, and the poster session provide ideal moments to meet and interact. Moreover, you can explore our **green campus** and delve into its history with a guided tour of the 'Oude Warande', an 18th-century park adjacent to the campus. Following the tour, join us for dinner and drinks at the beautifully designed **Faculty Club**.

Similar to the last conference, we will again use a conference app (Sched), where you can find the full program of the conference and create your own personalized schedule. You will receive instructions on how to use the app. We hope these two days will spark new ideas and collaborations that will strengthen the field of developmental psychology. We look forward to welcoming you in Tilburg!

The organizing committee,

Manon van Scheppingen (Chair)

Iris Frowijn

Jessie Hillekens

Nessa Ikani

Valentina Macias

Lisanne de Moor

Eeske van Roekel

Annet Toornstra

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## Program at a glance

Thursday, May 30		Friday, May 31	
8:45 - 9:15	Registration + coffee	8:45 - 9:15	Registration + coffee
9:15 - 9:30	Conference opening	9:15 - 10:15	Keynote: Matteo Giletta
9:30 - 10:30	Keynote: Yvonne Brehmer	10:15 - 10:45	Coffee break
10:30 - 10:45	Coffee break	10:45 - 12:00	Parallel sessions (Symposia)
10:45-11:30	General assembly VNOP	12:00 - 13:00	Lunch
11:30 - 11:45	Short break	13:00 - 13:45	Parallel sessions (Flash talks)
11:45 - 13:00	Parallel sessions (Symposia)	13:45 - 14:00	Short break
13:00 - 14:00	Lunch	14:00 - 15:15	Parallel sessions (Symposia)
14:00 - 14:45	Parallel sessions (Flash talks)	15:15 - 15:45	Coffee break
14:45 - 16:00	Posters + coffee	15:45 - 16:45	Keynote: Anna Lichtwarck-Aschoff
16:00 - 17:15	Parallel sessions (Symposia)	16:45 - 17:15	Award ceremony and closing
17:15 - 17:25	Group photo		
17:30 - 18:30	Guided tour Warandebos		
18:30	Dinner at Faculty Club		



### **Keynote speaker 1: Yvonne Brehmer**

Thursday 30 May, 9:30 - 10:30 hrs

**Keynote title:** Successful Aging from a Lifespan Perspective

**Keynote abstract:** Western societies are aging due to declining birth rates and enhanced life expectancy. The number of individuals aged 60 years or older is expected to double within the next 30 years, reaching around two billion. This global shift to older populations comes with major individual and societal challenges, as aging is the strongest risk factor for multi-morbidity and dementia. The concept of “successful aging” has increased in popularity, even though sometimes discussed quite critically. Various models of successful aging advocate for optimizing biological aging processes, reducing age-related diseases, and maintaining functional abilities to promote well-being in older age. Social participation, leisure opportunities, grandchild care, volunteering opportunities, seems to be crucial to enhance health and well-being of older adults leading to higher quality of life and reduced pressures on healthcare systems. In this presentation, I will discuss the term “successful aging” as a multi-dimensional concept, which needs to be emphasized in its dynamic nature influenced by personal, cognitive, and social factors across the lifespan. I will refer to studies conducted at Tilburg University, with the ultimate goal to foster an inclusive society, which allows equal opportunities for all age groups, including older adults.

**About Yvonne Brehmer:** Full Professor at Tilburg University, Developmental Psychology Department



## Keynote speaker 2: Matteo Giletta

Friday 31 May, 9:15 - 10:15 hrs

**Keynote title:** The Impact of Psychosocial Stress in Adolescence

**Keynote abstract:** Adolescence represents a uniquely sensitive developmental period for the impact of psychosocial stress on health. Neurobiological and psychosocial changes associated with the onset of puberty increase adolescents' sensitivity to their social context and influence how they respond to stressful events. These profound changes play a critical role in increasing adolescents' vulnerability to develop stress-related psychopathologies, such as anxiety and depressive symptoms, which dramatically raise with the transition to adolescence. Given the concerning number of adolescents reporting stress-related clinical symptoms and their (long-term) individual and societal burdens, understanding the processes through which psychosocial stress may impact adolescents' lives remains highly relevant. In this talk, I will present a series of studies examining how stress exposure in adolescence may interfere with a variety of biological (e.g., HPA-axis and immune system activity) and psychological (e.g., daily-life emotion regulation) processes. These studies adopt an interdisciplinary approach that combines theories across different research fields, and utilize diverse methodologies, including ecological momentary assessments as well as standardized laboratory paradigms. Altogether, this work aims to shed lights on the complex mechanisms through which stress exposure, and how adolescents respond to it, may pose risk to their mental health and long-term development.

**About Matteo Giletta:** Associate Professor at Ghent University, Department of Developmental, Personality and Social Psychology



### **Keynote speaker 3: Anna Lichtwarck-Aschoff**

Friday 31 May, 15:45 - 16:45 hrs.

**Keynote title:** Tipping Points in Treatment Trajectories

**Keynote abstract:** There is growing recognition of psychopathology as an intricate phenomenon characterized by significant diversity within diagnostic classifications, comorbidities, and temporal fluctuations. Evidence is amassing, indicating that psychopathology reflects individualized experiences, stemming from a complex interplay among interdependent biological, psychological, and sociocultural factors. Complex adaptive systems is an interdisciplinary framework adept at encompassing the dynamic, multi-causal, and idiosyncratic nature of psychopathology, providing insights and tools to conceptualize and manage pattern formation and (therapeutic) change. A significant part of my research in the past years centers around the hypothesis that the general goal of treatment is to break the rigid state associated with psychopathology and shake loose old patterns, to trigger a qualitative shift towards more healthy and flexible patterns of functioning. In this talk I will present studies in various target groups and treatment contexts, employing different designs and methods. A general approach that we take is to collect data on (many) contextualized individual change processes. This method allows the bottom-up accumulation of broader, universally applicable insights into mechanisms of change, which can then be extrapolated across diverse contexts, temporal stages, and diverse populations. Ultimately our goal is to inform daily practice about how to dynamically personalize interventions (i.e., better target and timely adapt intervention efforts to the particulars of individual clients).

**About Anna Lichtwarck-Aschoff:** Full Professor at University of Groningen, Department of Pedagogical and Educational Sciences, unit Child and Family Welfare (Orthopedagogiek)

## Detailed program: Thursday 30 May

Time	Activity	Location
8:45 - 9:15	Registration and coffee	Dante Foyer
9:15 - 9:30	Conference opening	DZ1
9:30 - 10:30	<b>Keynote Yvonne Brehmer</b>	DZ1
10:30 - 10:45	Coffee break	Dante Foyer
10:45 - 11:30	General Assembly VNOP	DZ1
11:30 - 11:45	Coffee break	Dante Foyer
11:45 - 13:00	<b>Parallel sessions (symposia)</b> S1. A. Tyborowska: Emotion regulation and symptom development across the lifespan S2: A. Van Dijk: Improving mental health care for youth with behavioral problems through professionalization S3: N. Klijn: Teaching event	DZ1 DZ3 DZ4
13:00 - 14:00	Lunch	Dante Foyer
14:00 - 14:45	<b>Parallel sessions (flash talks)</b> <b>F1: Digital media</b> 1. H. Avci: A Systematic Literature Review on Social Media Use and Adolescent Identity Development 2. S. van de Groep: Online prosocial behavior in adolescence and young adulthood: differential age and gender patterns for online emotional support and online activism 3. J. Lukoff: Exploring Daily Aggression and Substance Use Among Multi-Problem Young Adults: An Experience Sampling Method (ESM) Project Proposal 4. S. de Ruyter: Digital Media Use Inequality and Youth Development 5. L. Todorovic: Longitudinal Associations of Problematic Digital Media Use and Mental Health in Adolescence	DZ1
14:00 - 14:45	<b>F2: Life transitions, identity, and personality</b> 1. P. Bange: Genetic and Environmental Contributions to Personality Stability and Change: A Longitudinal Twin Plus Sibling Design 2. İ. Ozoruc: Big Five Personality Traits and Trajectories of Fertility Expectations in Dutch Adults Across Their Reproductive Age Period 3. C. Tran: New mothers' daily psychological well-being across the transition to parenthood 4. J. Vietze: The Identity Podcast Project: Developing an Inclusive Professional Identity Intervention for Higher Education 5. A. Visscher: Trajectories of Adolescents' Life Satisfaction Surrounding the Transition to Vocational Education: Links to Academic Performance, Academic Motivation, and Vocational Education Satisfaction	DZ3
14:00 - 14:45	<b>F3: Teachers and children's learning</b> 1. M. Aristodemou: You Could Do Better Tomorrow: Nonverbal reasoning speed fluctuates from day-to-day while working memory performance is stable	DZ4

	<p>2. I. Coolen: There is no inhibition construct, only task-specific inhibitory skills with unique contributions in the development of arithmetic skills in 5-, and 7-year-old children.</p> <p>3. N. Hoekstra: Teachers' impact on classroom social dynamics – a PhD project overview</p> <p>4. E. Meeussen: Measuring, modelling and mechanistically understanding the nature of cognitive variability in early childhood</p> <p>5. L-E. Schenker: Does Your Teacher's Praise Make You Feel Less Smart? A Virtual Reality (VR) Experiment</p>	
<p>14:45 - 16:00</p>	<p><b>Posters</b></p> <p>P1. C. Amesz: Examining Co-Rumination and Internalizing Problems in Dutch Adolescent Girls: Study Protocol of an Observational Repeated Measures Study</p> <p>P2: N. Chmielowice-Szymanski: High Social Rank &amp; Social Behavior in Emerging Adults: Comparing Popularity &amp; Likeability to Dominance &amp; Prestige in a Cooperative &amp; Competitive Task</p> <p>P3: K. Curie: Effectiveness of a blended school-based mindfulness program for the prevention of co-rumination and internalizing problems in Dutch secondary school girls: Study protocol of a cluster randomized controlled trial</p> <p>P4: Y. Grootjans: EEG measures of self-regulation and mental health outcomes in adolescents</p> <p>P5: N. Horoz: Context Matters: norm salience towards aggression moderates the association between parental education and childhood aggressive behavior development</p> <p>P6. S. Jabroun: The Girls United study: Examining the association between elementary schoolgirls' friendship dynamics and their social, emotional, and academic development.</p> <p>P7: N. Komrij: Cool Little Kids: an online targeted group-based parenting program to prevent the development of anxiety disorders in inhibited toddlers</p> <p>P8. I. Lucieer: Practice What You Preach? Exploring Parental Attitudes Toward, Modeling of, and Teaching About Lying Among Parents</p> <p>P9: M. Matetovici: Gender Effects in the Relationship between Attachment to Parents and Prosocial Behavior in Early Childhood</p> <p>P10: J. Mo: A Cross-Cultural Study of the Roles of Personal Cultural Values in Domain-Specific Mistrust in Upper-Elementary School</p> <p>P11: M. Nieterau: How parenting may impact child disruptive behavior: An experience sampling study proposal</p> <p>P12: M. Nygaard: Prospective memory and strategy use in aging</p> <p>P13: C. Psyllou: Exploring Gender-Differentiated Parenting in the Context of Behavioral Parent Training: Boys and Girls with ADHD are Treated Differently by their Parents</p> <p>P14: N. Ramesh: Personality Trait Change During the Transition to University: Does University Shape Character?</p> <p>P15: K. Rienks: Targeting Parental Risk Factors for Children's Anxiety: A Factorial Experiment With Three Intervention Components</p>	<p>Dante Foyer</p>



	<p>P16: C. Romein: Cannabis use, social cognition, emotion recognition and the brain: a systematic review of neuroimaging studies</p> <p>P17: E. Roza: Systematic Observation of Parental Lying in Parent-Child Interactions: A Novel Coding Scheme</p> <p>P18: L. Schroer: Infant-parent attachment and lie-telling in young children: Evidence from a population-based cohort study</p> <p>P19: V. Siegmeier: Exploring How Children’s Talents Are Linked to Their Quality of Life and Academic Success in the Dutch Primary School Context</p> <p>P20: S. Singh: Navigating Generational Shifts: A Study on Enhancing Parental Self-Efficacy in 21st-Century Indian Families</p> <p>P21: T. Todor: Prevention of adolescent risk-taking behavior through early identification</p> <p>P22: D. Tressová: Identity and Personality Pathology in Adult Forensic Psychiatric Patients and Healthy Controls</p> <p>P23: S-M. Vasilaki: Intergenerational Transmission: Does Parents’ Trauma Predict Infant’s Externalizing Problems Through Harsh Parenting?</p> <p>P24: E. Verspeek: Expecting to Relocate to a Nursing Home: Longitudinal Associations with Health and Well-being</p>	
16:00 - 17:15	<p><b>Parallel sessions (symposia)</b></p> <p>S1: L. te Brinke: Youth participation beyond the buzzwords: Concrete examples and best practices</p> <p>S2: K. Green: Brain development and mental health in today’s generation of children, adolescents, and young adults</p> <p>S3: L. Björg Laas Sigurðardóttir: What’s Next in Intervention Research? On the Advantages and Applications of Individual Participant Data Meta-Analyses</p>	<p>DZ1</p> <p>DZ3</p> <p>DZ4</p>
17:15 - 17:25	Group photo	
17:30 - 18:30	Guided tour Warandebos	
18:30	Dinner Faculty Club	Faculty Club (see <a href="#">campus map</a> )

## Detailed program: Friday 31 May

Time	Activity	Location
8:45 - 9:15	Registration and coffee	Dante foyer
9:15 - 10:15	<b>Keynote Matteo Giletta</b>	DZ1
10:15 - 10:45	Coffee break	Dante Foyer
10:45 - 12:00	<b>Parallel sessions (symposia)</b> S1: C. Pas: Age-differences in cognitive functioning and information processing S2: L. Stone: Teaching event: Escalating into Coercion: Ethics of Clinical Care during Adolescence S3: M. Nikolic: Latest insights in the study of mother-infant synchrony	DZ1 DZ3 DZ4
12:00 - 13:00	Lunch	Dante Foyer
13:00 - 13:45	<b>Parallel sessions (flash talks)</b> <b>F1: Parenting in Adolescence</b> 1. S. Boele: Why you should not ignore the individual adolescent 2. R. van Doornik: Brief behavioral parent training for children with impairing ADHD characteristics – a pilot study 3. C. Henneveld: When Do Parents and Adolescents Perceive Parental Support as Too Much? 4. R. van Logchem: Parenting Interventions for Adolescent Mental Health: A Participatory Study Among Parents and Adolescents 5. J. Runze: The role of parenting and DNA methylation in pubertal development and timing of sexual reproduction	DZ1
13:00 - 13:45	<b>F2: Prosocial and Antisocial Behaviour</b> 1. N. Horoz: Academic Self-Concept Development in Elementary School: the Role of Household- and School-level Parental Education 2. E. Karkdijk: Like my parents taught me to? Examining the association between democratic parenting and adolescents' citizenship self-efficacy and institutional trust 3. T. Lansu: Being On Top Versus Not Dangling At the Bottom: Popularity Motivation and Aggression in Youth 4. D. Liu: Differential Susceptibility to Peer Rejection and Acceptance: A Within-Child Experiment 5. J. Spitzer: Promoting Adolescents' Sustainable Behavior via Motive-Alignment: A Field-Experiment	DZ3
13:45 - 14:00	Coffee break	Dante Foyer
14:00 - 15:15	<b>Parallel sessions (symposia)</b> S1: I. Frowijn: Predictors of Deviant Behavior and the Role of Personality: Measurement and Technology S2: E. Verspeek: Adaptation and Regulatory Processes Across the Adult Life Span S3: E. van Roekel: Innovations in emotion research using the Experience Sampling Method	DZ1 DZ3 DZ4
15:15 - 15:45	Coffee break	Dante Foyer
15:45 - 16:45	<b>Keynote Anna Lichtwarck-Aschoff</b>	DZ1
16:45 - 17:15	Award ceremony and closing	DZ1

## **Abstracts: Thursday 30 May**

### **Keynote (9:30-10:30). Room DZ1**

**Keynote title:** Successful Aging from a Lifespan Perspective

**Speaker:** Yvonne Brehmer

**Keynote abstract:** Western societies are aging due to declining birth rates and enhanced life expectancy. The number of individuals aged 60 years or older is expected to double within the next 30 years, reaching around two billion. This global shift to older populations comes with major individual and societal challenges, as aging is the strongest risk factor for multi-morbidity and dementia. The concept of “successful aging” has increased in popularity, even though sometimes discussed quite critically. Various models of successful aging advocate for optimizing biological aging processes, reducing age-related diseases, and maintaining functional abilities to promote well-being in older age. Social participation, leisure opportunities, grandchild care, volunteering opportunities, seems to be crucial to enhance health and well-being of older adults leading to higher quality of life and reduced pressures on healthcare systems. In this presentation, I will discuss the term “successful aging” as a multi-dimensional concept, which needs to be emphasized in its dynamic nature influenced by personal, cognitive, and social factors across the lifespan. I will refer to studies conducted at Tilburg University, with the ultimate goal to foster an inclusive society, which allows equal opportunities for all age groups, including older adults.

## Symposium 1 (Parallel Session 11:45-13:00): Room DZ1

**Symposium title:** Emotion regulation and symptom development across the lifespan

**Chair:** Anna Tyborowska

**Symposium abstract:** The ability to regulate emotions is a skill that develops throughout our lives with key sensitivity periods marking transitions or alterations in how control of emotional tendencies is implemented. Effective emotion regulation is important for general mental well-being and overall adaptive functioning. During sensitive life-periods, dynamic changes in social-emotional and neurobiological systems increase the likelihood of developing stress-related disorders, characterized by poor emotion regulation abilities. This symposium explores specific factors and mechanisms that underly and contribute to emotion regulation processes as well as the development of stress-related symptoms and disorders. The symposium adopts a lifespan perspective, showcasing studies that span a wide developmental timespan – from early adolescence until adulthood. Emotion regulation is discussed using a multi-faceted approach that combines a variety of neuro – hormonal measures, ecological momentary assessments, and dynamic systems analyses. First, the development of emotion control circuits during early adolescence will be discussed, in the context of pubertal hormones and early-life stress. The following presentation will expand on the impact of both endogenous and exogenous hormones on emotion regulation, with a specific focus on mental health in young women. Next, an investigation on affect recovery using ecological momentary assessments, will show how dynamic interactions between psychopathological symptoms and the environment can be used to indicate a critical window for intervention. The final talk will present a lifespan perspective on changes in symptom networks, particularly for anxiety and fear-related disorders, and how that may be relevant for treatment monitoring.

### Speaker and presenters

#### **Emotion action control, pubertal testosterone, and the role of early-life stress during early adolescence.**

*Anna Tyborowska, Fleur van Ruller, Roseriet Beijers, Simone Kühn, Carolina de Weerth, & Karin Roelofs*

Adolescence is a critical period involving intense neuro-endocrine and social-emotional changes. Previous studies have shown that during mid-adolescence, there is a maturational shift from prefrontal to subcortical emotion control, modulated by testosterone levels. Namely, high testosterone levels are associated with increased anterior prefrontal (aPFC) involvement when controlling emotional actions, reflecting adult-like functioning. Lower testosterone levels are related to greater pulvinar and amygdala activity. During early adolescence, rising testosterone levels likely facilitate neural reorganization, particularly in emotion circuits, making brain development particularly sensitive not only to ongoing stressors, but also to the emergence of incubated effects of early-life stress. Using an fMRI-based Approach Avoidance task, this study 1) identifies neural control of emotion actions in the aPFC, amygdala, and pulvinar, as a function of pubertal development (indexed by testosterone) in 12-year-old children (n=92); and 2) qualifies differences in this circuit with respect to early-life stress. Higher testosterone levels were related

to increased amygdala and pulvinar activity, but aPFC activity during emotion control was not yet modulated by testosterone levels. Critically, this relationship was moderated by early-life stress: 12-year-old adolescents with more early-life stress and higher testosterone levels exhibited increased aPFC engagement – a pattern previously seen during mid-adolescence. The same pattern was also replicated for individuals who experienced higher levels of prenatal stress. These findings show that the relationship between pubertal development and engagement of emotion control regions may be highly dependent on early-life stress – which may accelerate testosterone-moderated aPFC recruitment, during a time of neural reorganization at the onset of puberty.

### **Effects of hormonal variations during natural menstrual cycle vs oral contraceptive use on emotion regulation and the brain.**

*Klara Sifalakis-Spalek*

In a woman's life, major transition periods such as puberty, pregnancy, and menopause go along with substantial natural fluctuations in endogenous ovarian hormones, estradiol and progesterone, and have an impact on women's functioning by influencing amongst others socio-emotional behaviour (such as emotional processing, regulation and memory), as well as brain structure and function. However, already more subtle hormone variations such as during the menstrual cycle (MC) and the exogenous administration of hormones by for instance oral contraceptives (OC) are associated with these behaviours and neuronal patterns. Both of these hormonal transition periods become central during adolescence and young adulthood. The herein presented project and some of its first preliminary results are based on a highly targeted dataset, focusing on the impact hormonal variations have on emotion regulation and its neuronal patterns in young naturally cycling women and in young women taking OCs. Naturally cycling women were investigated at three different time points during their menstrual cycle (menstrual, follicular and luteal phase) whereas women on OCs were examined during their active pill intake. Furthermore, OC-users were differentiated by the androgenicity of the OCs they used (anti-androgenic vs androgenic). The understanding of the effects of these hormonal transition periods on several aspects of behaviour and structural as well as functional brain patterns is still limited and contradictive. Therefore, these results contribute to a better understanding of these processes in respect to emotion regulation, a cognitive process central for mental health.

### **Bouncing back from daily social situations: Using dynamic recovery patterns to predict social anxiety symptom trajectories in young adults**

*Lynn Mobach, Elske Salemink, & Iris Engelhard*

Complexity of and dynamic interactions between psychopathological symptoms and their context gain increasing attention. However, the value of such an approach for the development of social anxiety remains unclear. This study assessed the impact of social interactions in daily life on the interplay between social anxiety symptoms and investigated whether the speed of recovery after daily social interactions predicted individual social anxiety symptom trajectories. Fifty female, young adults with heightened social anxiety symptoms participated in an intensive longitudinal time series design in which social anxiety symptoms were investigated 1) in response to daily social interactions using ten Ecological Momentary Assessment-questionnaires during a period of 14 days, and 2) over time using trait anxiety and depressive symptom questionnaires at baseline and after two, three and six months. Multilevel partial correlations showed that social anxiety symptoms were more densely correlated when individuals reported a social interaction than when

no social interaction was reported. Multilevel Bayesian survival analyses indicated that those individuals who recover slower after daily social interactions develop more social anxiety symptoms after six months than those who recover faster. However, results differed depending on the baseline operationalization. These results show that slower affect recovery can be a risk factor for worsening of symptoms and can indicate a critical window for intervention and prevention.

### **Is age just a number? Age-related differences in symptom networks of overall psychological functioning**

*Nessa Ikani, Melissa Guineau, Bea Tiemens, Richard Oude Voshaar, Marjolein Fokkema, & Gert-Jan Hendriks*

Anxiety disorders, obsessive compulsive disorder (OCD), and post-traumatic stress disorder (PTSD) are among the most prevalent mental disorders across the lifespan. Even though prevalence rates are comparable across younger and older adults, emerging evidence suggests that older adults experience different symptoms of anxiety compared to younger adults. In addition to phenomenological differences, it has also been suggested that there are differences in treatment outcomes between younger and older adults. There is, however, no consensus regarding the age that differentiates younger adults from older adults. As such, studies use different cut-off ages that are not well founded theoretically nor empirically. A network tree analysis was used to identify the age at which adults differed in their 'symptom network' of psychological functioning – mutually reinforcing and associated symptoms. In a sample of Dutch patients diagnosed with anxiety disorders, OCD, or PTSD (N = 27,386), the network tree algorithm found a first optimal split at age 30 and a second split at age 50. Results suggest that differences in symptom networks emerge around 30 and 50 years of age, but that the core symptoms related to anxiety remain stable across age. This tentatively suggests that the age split of 30 or 50 years should be used in studies aiming to investigate differences across the lifespan. In addition, the results suggest that age-related central symptoms are an important focus during treatment monitoring.

## Symposium 2 (Parallel Session 11:45-13:00): Room DZ3

**Symposium title:** Improving mental health care for youth with behavioral problems through professionalization

**Chair:** Anouk van Dijk

**Discussant:** Leonieke Boendermaker

**Symposium abstract:** A large proportion (16% up to 72%) of the treatments in youth mental health care results in premature termination (dropout), with even higher dropout rates in youth with externalizing behavior problems (De Haan et al., 2023). How may care for these youth be improved, so that more youth may benefit from effective interventions? This symposium includes four presentations focusing on the professionalization of care workers. First, Anouk van Dijk will show how providing treatment in autonomy-supportive ways may benefit treatment engagement of youth with aggressive behavior problems. Second, Aurelie Lange and Esmee Verheem will illustrate how to create “practice profiles” that provide action-based knowledge to support professional learning around the delivery of evidence-based elements in specific treatment settings. Third, Tycho Dekkers will show that evidence-based guidelines for ADHD treatment are often not followed, and will provide insight on why this may happen and could be resolved. Fourth, Leonieke Boendermaker will discuss these three talks, linking their findings to the large NWA program on “Doing what works for children” by investigating new approaches for (future) professionals in Dutch youth care. Together, these talks will provide insight in ways that professionals may be assisted to provide better care to youth with behavioral problems.

### Speaker and presenters

#### “I’m not here to push you:” Raising adolescents’ treatment engagement via autonomy support

*Anouk van Dijk, Eddie Brummelman, & Bram Orobio de Castro*

More than 45% of adolescents with aggressive behavior problems drop out of treatment prematurely. Building on insights from self-determination theory, we examined in three studies whether clinicians can raise adolescents’ treatment engagement by supporting their autonomy. In an interview study (Study 1), clinicians (N = 16; 43.8% female; ages 30–57) spontaneously described 12 times more autonomy-supportive than controlling strategies to engage adolescents. In a preregistered experiment (Study 2), clinicians (N = 68; 88.2% female; ages 23–65) were confronted with videos of adolescents displaying resistance. We manipulated the DSM diagnosis of adolescents to indicate either aggressive behavior problems or other problems. We found that, regardless of diagnosis, clinicians used both autonomy-supportive strategies (57.7% of responses) and controlling strategies (39.3%), suggesting that applying autonomy support can be challenging with any adolescent displaying resistance. In an experimental study (Study 3), adolescents (N = 252; 50.0% female; ages 12–17) reported higher therapeutic alliance ( $d = 0.95$ , 95% CI [0.80, 1.10]) and treatment engagement ( $d = 0.77$ , 95% CI [0.63, 0.91]) after listening to audio recorded autonomy-supportive versus controlling responses from clinicians, regardless of whether these adolescents had aggressive behavior problems. Overall, this research suggests

that clinicians can raise adolescents' treatment engagement through autonomy support.

### **Developing a practice profile as a tool to support professionals**

*Aurelie Lange, & Esmee Verheem*

**Aim:** This presentation will discuss practice profiles as a tool to support professionals to better deliver evidence-based effective components. A practice profile describes the activities of professionals in a specific setting and in a concrete and 'action-based manner.' This provides a tool to support 'learning on the job.' We will describe what a practice profile is, how it can be developed in co-creation and what benefits it provides for professionals. **Relevance:** Currently, there is a lack of action-based knowledge regarding the delivery of evidence-based effective components of interventions or programs. As a consequence, professionals are aware of the importance of delivering certain elements but are unequipped to actually deliver those elements in a context-appropriate manner. It is therefore important to improve our understanding of how to support professionals to acquire and develop this action-based knowledge. **Method and findings:** We developed a practice profile for professionals working in a residential setting for young people, and a practice profile for volunteers providing support to families with young children. We will discuss the steps undertaken to develop these practice profiles, which included a review of the literature / documentation, interviews, and vetting during work sessions with various stakeholders. We will also show how the practice profile can be applied in various ways, for example as a tool to coach students, or as a card game to use during supervision. Both practice profiles are currently being pilot tested in clinical practice. Initial findings regarding their applicability will be shared during the session.

### **Evidence-based treatment for children with ADHD: Challenges and solutions**

*Tycho J. Dekkers, on behalf of the PAINT consortium*

For children with ADHD, several interventions with a robust evidence-base are available. The implementation of these interventions in clinical practice, however, is suboptimal, which negatively impacts many children and their families. In this talk, I will discuss this problem from three perspectives. First, I will present three recent studies from our PAINT (Psychosocial ADHD Interventions) research consortium, in which we detected facilitators and barriers towards evidence-based practice for ADHD (survey studies in clinicians [N=219] and school mental health professionals [N=115], and a longitudinal observation study in parents of children with ADHD [N=126]). These studies demonstrate that guidelines are often not followed, many children with ADHD receive interventions without a solid evidence base, and many factors determine families' treatment choices. Second, I will discuss one particular finding in detail: Context-focused interventions (i.e. behavioral parent/teacher training) are recommended by all guidelines, but their uptake is problematic. We therefore developed a brief and more accessible intervention of only three sessions. I will discuss pilot work (N=29 families), showing that this brief intervention has promising effects, as well as our three ongoing randomized controlled trials in different settings. Third, I will argue that the current narrative around ADHD, with a predominant emphasis on biological causes, is a crucial factor driving treatment selection. A too narrow biological perspective on ADHD may lead to decontextualization, which is the belief that children, or their brains, are primarily responsible for their symptoms. This narrative logically leads families towards child-focused solutions, and prevents them from selecting evidence-based contextual interventions.



## Teaching workshop (Parallel Sessions 11:45-13:00): Room DZ4

We will update the program soon with more information about this teaching workshop.

## Flash Talks (Parallel Sessions 14:00-14:45)

### F1. Topic: Digital media. Room DZ1

#### 1. Hamide Avci, Laura Baams, & Tina Kretschmer: **A Systematic Literature Review on Social Media Use and Adolescent Identity Development**

Background: Social media has become a new context for adolescent identity development. Considerable research has focused on the link between social media engagement and identity development. However, a thorough understanding of this relationship is challenging due to the different facets of social media engagement and the use of diverse concepts related to identity. Objective: This review synthesizes research on the relationship between quantity and quality of social media use and identity development and its related constructs, including commitment and exploration, self-concept clarity, and identity distress. Method: In November 2022, a systematic search was conducted across four databases, initially yielding 4,467 records, of which 32 studies were included in the analysis, comprising a total number of 19,658 adolescents with a mean age of 16.43 years (SD = 1.81). Results: Active participation on social media, rather than merely time spent on it, was associated with identity exploration. Adolescents who engaged in more comparisons on social media also scored higher on identity exploration but also on identity distress. On social media, being authentic was linked to a clearer self-concept, whereas idealized self-presentation correlated with lower self-concept clarity. Conclusion: Overall, it matters more for identity development what young people do on social media than how much time they spend on it.

#### 2. Suzanne van de Groep, Ilse H. van de Groep, & Eveline A. Crone: **Online prosocial behavior in adolescence and young adulthood: differential age and gender patterns for online emotional support and online activism**

Adolescence and emerging adulthood are important developmental periods for extending prosocial behaviors to larger societal contexts, such as social media. Yet, whether adolescents show varying age and gender patterns for different online prosocial behaviors remains largely unexplored. This study examined online emotional support and online activism in 955 adolescents and young adults (ages 12–25; 58% female) using an extended version of the Online Prosocial Behavior Scale (OPBS-E). First, the study demonstrated adequate convergent validity with offline prosocial behaviors, and reliability across two time points separated by 6 months. Whereas online emotional support was correlated with economic game donations, online activism was associated with higher compulsive social media use. Second, this study showed that online emotional support and activism were differentially associated with gender and age patterns. Overall, females exhibited more online emotional support than males, whereas males showed more online activism. Age by gender interaction patterns revealed that online emotional support was higher for females than males in younger adolescence and young adulthood, but males showed similar level of online emotional support as females in the late teenage years. Furthermore, younger adolescents demonstrated higher levels of online activism with decreasing trends into emerging adulthood, independent of

gender. Overall, this study shows diverse manifestations and developmental patterns for online prosocial behaviors. It underscores the importance of considering the online environment in understanding adolescents' and young adults' prosocial development.

### 3. Jennie Lukoff: **Exploring Daily Aggression and Substance Use Among Multi-Problem Young Adults: An Experience Sampling Method (ESM) Project Proposal**

Young adults grappling with antisocial behavior and addiction encounter persistent challenges despite ongoing intervention efforts. Existing literature highlights the value of exploring daily fluctuations in maladaptive behaviors using the Experience Sampling Method (ESM). In contrast to laboratory studies with limited ecological validity, ESM captures mood and behavior fluctuations in a respondent's natural environment. Building upon our pilot study findings, the current study will use a validated ESM approach to investigate momentary changes in aggression (proactive, reactive) and substance misuse (cigarettes/e-cigarettes, cannabis, and alcohol) among young adults with prior legal involvement. Approximately 50 young adults seeking social welfare support from the municipality of Rotterdam in the Netherlands will participate in a brief (1-2 minutes) daily survey, administered twice a day, five days a week, for 2-4 weeks. The survey will focus on aggression (proactive, reactive, and provocation) and substance use (craving, consumption) exhibited over the past hour. The primary goal of this study is to pinpoint specific moments when participants are more prone to engaging in acts of aggression or substance misuse. By identifying critical periods of risk and the contextual factors preceding these maladaptive behaviors, we can focus future research efforts on developing more effective intervention strategies for this expanding population of antisocial young adults.

### 4. Sara de Ruyter, & Ewa Miedzobrodzka: **Digital Media Use Inequality and Youth Development**

Youth live in a world saturated with digital media. Such immersion in a digital world may affect adolescents' social, cognitive, and identity development. However, not all teens have equal opportunities to use and benefit from digital media. Factors such as economic, social, or cultural background can lead to digital inequalities (unequal access and use of digital media), thus the possible effects of digital media use may differ depending on adolescents' backgrounds. In the current Youth and Digitalization project (JEDi), we consider background factors that may contribute to inequalities in digital media use. These factors, along with social aspects (e.g., parental styles) and individual factors (e.g., media skills), might moderate the effects of digital media use on adolescent development. In order to test this expectation, we will conduct a longitudinal study involving N = 1000 adolescents (aged 12-14) from various secondary schools in the Netherlands, who will be followed for two years (three waves with one year break). The results of this research will provide new insights into the role of digital inequalities in adolescent media use and development and could inform which teenagers may be especially vulnerable to the effects of media, and to what extent exposure to digital media may support or hinder adolescent development, depending on youth's background. The main aim of this presentation will be to receive feedback on our study design.

### 5. Luka Todorovic, Helle Larsen, Bianca E. Boyer, Annabel Bogaerts, Hanan Bozhar, & Susanne de Rooij: **Longitudinal Associations of Problematic Digital Media Use and Mental Health in Adolescence**

This longitudinal study investigated bidirectional relationships between problematic digital media use (specifically, problematic social media use and problematic gaming) and important mental health domains in adolescence. Certain mental health domains show bidirectional relationships with problematic social media use and problematic gaming, but it is not yet clear what the relative contribution of different mental health domains to subsequent problematic digital media behaviours is, and whether these problematic digital media behaviours differ in their bidirectional relationships with mental health. We assessed the domains of mental health (emotional problems, conduct problems, hyperactivity/inattention, prosocial behaviour) with the Strengths and Difficulties Questionnaire. Problematic social media use and gaming were assessed with the Social Media Disorder Scale and Internet Gaming Disorder Scale, respectively. The relationships were studied across two waves (2019, 2021) with a cross-lagged panel model among a sample of Dutch adolescents (N=645, 63% male; ABCD cohort study) who reported both using social media and games. The average age was 15.8 (SD=0.3) at wave 1 and 17.4 (SD=0.3) at wave 2. Preliminary results indicated that emotional problems at wave 1 significantly positively related to both problematic social media use and problematic gaming at wave 2, but not vice versa – problematic digital media behaviours at wave 1 were not related to emotional problems at wave 2. No other significant bidirectional paths were observed. These results highlight the potential impact of emotional problems (i.e., anxiety, depression) on the development of problematic social media use and problematic gaming. Additional analyses and future recommendations are discussed.

## **F2. Topics: Life transitions, identity, and personality. Room DZ3**

### **1. Paula C. Bange, Dirk H. M. Pelt, Anne K. Reitz, Eeske van Roekel, & Manon A. van Scheppingen: Genetic and Environmental Contributions to Personality Stability and Change: A Longitudinal Twin Plus Sibling Design**

Although personality traits have been found to follow normative change trajectories across the life span, individuals show substantial variation in this change. It is well established that both genetic and environmental sources contribute to these individual differences. However, previous longitudinal studies have primarily focused on studying additive genetic and non-shared environmental influences, while being constrained with regard to their ability to examine possible non-additive genetic effects (i.e., effects resulting from interaction between alleles) due to power limitations. We specifically examine non-additive genetic influences in addition to additive genetic and non-shared environmental influences on individual differences in stability and change of Big Five personality traits. Using 9-year longitudinal data of adult monozygotic and dizygotic twins and their non-twin siblings from the Netherlands Twin Register, we will apply biometric latent growth curve models and variance decomposition models. By including non-twin siblings of twins, we increase power to detect non-additive genetic effects. With this, we seek to provide a more precise picture of the genetic and environmental sources underlying personality development in adulthood.

### **2. İlayda Özoruç, Katya Ivanova, Jeroen Vermunt, & Manon van Scheppingen: Big Five Personality Traits and Trajectories of Fertility Expectations in Dutch Adults Across Their Reproductive Age Period**

Over the past decades, increased freedom of choice and advancements in fertility regulation technologies have allowed individuals to delay parenthood, opt not to become parents at all, express uncertainty about wanting children, and to change their minds over time. This greater autonomy

provides room for factors beyond current life circumstances, such as personality traits, to play a significant role in shaping long-term fertility expectations. In the present study, we explored the development of fertility expectations by using the representative Dutch LISS panel (2008-2022) and followed non-parents across their fertility age period (age range = 18-49, N = 5,231). We conducted a joint latent class analysis using Latent GOLD software. We have identified five unique fertility expectation trajectories separately for women and men: normative, postponement, uncertain, switching, and childfree. Results showed that having a stable expectation to become a parent from an early age (i.e., the normative trajectory) was the most prevalent latent class. However, more than half of the sample deviated from this trajectory, indicating that norms have been challenged. Men and women following the normative trajectory showed higher levels of agreeableness and extraversion compared to the uncertain and childfree trajectories. Moreover, men (but not women) following the normative trajectory scored higher on conscientiousness and openness, and lower on neuroticism compared to the uncertain and childfree trajectories. This study provides insights on changing norms around fertility expectations in relation to personality traits, and ongoing demographic trends. Future studies should explore underlying mechanisms between personal characteristics and long-term fertility expectations.

### 3. Chau Tran, Katya Ivanova, Olga Stavrova, & Anne Reitz: **New mothers' daily psychological well-being across the transition to parenthood**

Becoming a parent is a major life event associated with changes to psychological outcomes such as well-being. However, this transition has only been studied using large time increments. Virtually no insight into how it is reflected in the lived experiences of parents has been generated. Using 3 waves of experience sampling data (N = 161) following first-time Dutch mothers for 10-month duration from pregnancy to post-childbirth, we investigate the changes in affective, cognitive, and eudemonic well-being, their individual variability and daily fluctuation across the transition. Using multilevel modeling, we expect to observe an increase in daily fluctuation of all well-being outcomes, a decrease in affective and cognitive well-being, and an increase in eudemonic well-being, with significant individual variability. The study provides the first detailed picture of the parenthood transition and can be built upon for future research as well as better interventions and support programs for new parents.

### 4. Jana Vietze, Marieke Meeuwisse, Amaranta de Haan, Rick Wolff, & Bjorn B. de Koning: **The Identity Podcast Project: Developing an Inclusive Professional Identity Intervention for Higher Education**

This paper outlines the conceptualization and development of an intervention targeting professional identity development of late adolescents in higher education. First, we describe the rationale for focusing on professional identity development as intervention objective, underscored by prior empirical evidence linking it to students' positive academic adjustment (i.e., sense of belonging, study motivation). Second, we explain our approach for developing the Identity Podcast Project, providing a comprehensive overview of the components and structure, and emphasizing the integration of inclusive and intersectional considerations. Third, we describe our qualitative and quantitative data collection and intervention effects among students (N = 33; 85% female) enrolled in an elective pedagogical sciences course at a public university in the Netherlands. On the within-person level, professional identity centrality significantly increased. Also, students perceived more linkage between their cultural, gender, and professional identity after the intervention. There were no

changes in the remaining outcome variables, including general professional identity, sense of belonging, and study motivation. Finally, we address important limitations while considering the potential implementation and transferability of the intervention to related academic disciplines and higher education curricula.

#### 5. Anke H. Visscher: **Trajectories of Adolescents' Life Satisfaction Surrounding the Transition to Vocational Education: Links to Academic Performance, Academic Motivation, and Vocational Education Satisfaction**

Although studies examined differences in life satisfaction across adolescence, the influence of school transitions is often neglected. This study examined the trajectories of life satisfaction in adolescents transitioning to vocational education using data spanning 6 years before and 2 years after the school transition. To examine short- and long-term effects of the transition, heterogeneous linear mixed models were applied to a sample comprising 1,747 German adolescents (57% boys, 96% Germany born,  $age_{timepoint1} = 9-16$ ,  $age_{timepoint2} = 12.81$ ,  $age_{range} = 9-21$ ,  $M_{participation} = 5.99$ ). Preliminary analyses revealed three trajectories: a trajectory that showed temporarily decreases (3.32%), a trajectory that showed relatively stable high levels (91.07%), and a trajectory that showed initial growth and a transition dip (5.61%). The majority showed long-term high life satisfaction levels. Multinomial logistic regression analyses showed that academic performance, academic motivation, satisfaction with vocational education, gender, and age were differently related to life satisfaction trajectories. Research implications and results will be discussed.

### F3. Topics: Teachers and children's learning. Room DZ4

#### 1. Michael Aristodemou, Nicholas Judd, Torkel Klingberg, & Rogier Kievit: **You Could Do Better Tomorrow: Nonverbal reasoning speed fluctuates from day-to-day while working memory performance is stable**

On some days we feel like we are not performing at our best. However, whether these experiences align with substantive differences in cognitive performance has not been studied systematically. We analyse dense time-series data of children's performance on nonverbal reasoning ( $n=459$ ;  $t=499,097$ ) and visuospatial working memory ( $n=4150$ ;  $t=1,048,576$ ) tasks using dynamic structural equation models to describe their pattern of instability across trials and days. Our model comparison confers domain-specific results, with children showing evidence for fluctuations in their nonverbal-reasoning speed from day-to-day, but stability in working-memory performance. Children's day-to-day fluctuations in nonverbal reasoning speed were 1.7 times larger than individual differences in mean response-speed. We show that day-to-day fluctuations in cognitive performance are more than folk intuition, argue that their neglect is problematic for translational and epistemic reasons, and demonstrate how a better understanding of cognitive performance as a dynamic phenomenon can improve cognitive assessment and theory construction.

#### 4. Ilse Coolen, Emma Meeussen, Jordy van Langen, Sophie Hofman, Nicholas Judd, Michael Aristodemou, Jessica Schaaf, Lea Michel, & Rogier A. Kievit: **Measuring, modelling and mechanistically understanding the nature of cognitive variability in early childhood**

Children's cognitive skills develop rapidly. Traditional methods to test this rapid development look

at mean performance across tasks to assess the developmental trajectory. However, we know that cognitive performance fluctuates within person, across trials, and across time. This variability is most prominent at an early age and potentially influences the way children score at key assessments. Preliminary evidence from our group also suggests a relation between cognitive variability and later development.

Prior to data collection, we present our upcoming protocol paper, describing how the CODEC (COgnitive Development in Early Childhood) project aims to measure, model and mechanistically understand this intra-individual fluctuation in order to better predict developmental outcomes and enable appropriate early intervention. In a unique accelerated longitudinal design, we will assess cognitive performance across five domains and at different temporal resolutions, using behavioral and neuroimaging measures. 600 children, aged 7 to 10 years at first measurement, will be recruited for behavioral testing, 200 of whom will be included in a deep phenotyping arm. Deep phenotyping consists of (f)MRI scans (including eye tracking) at the start and end of the three year study, and the collection of demographic and psychosocial data.

The CODEC project promises a rich open access dataset with variability measures across trials, days, and years. By using Dynamic Structural Equation Modeling (DSEM), we will be able to accurately capture the multilevel structure of trials nested in sessions, days, and children in order to create a comprehensive profile of a person's variability on multiple dimensions of interest. Can a teacher's praise do harm? Challenging the common belief that teacher praise makes students feel more competent, we hypothesize that teacher praise can make children feel less competent. This flash talk presents preliminary results of a preregistered experiment investigating possible adverse effects of teacher praise on students' academic self-views. Research suggests that when children witness one out of two equally performing students receive praise, they perceive the praised child as less smart (Schoneveld & Brummelman, 2023). They infer that the praised child worked harder and must therefore be less smart. Extending this finding, we examine whether receiving praise, while an equally performing classmate does not, makes children feel less smart but more hardworking. Children (8 – 13 years old) complete tasks in a Virtual Reality (VR) classroom along with a virtual classmate. Afterwards, both students receive bogus feedback indicating they achieved the same score. Then the teacher praises (1) the participant but not the classmate or (2) the classmate but not the participant. We then measure children's self-perceived ability and effort

### 3. Nathalie Hoekstra: **Teachers' impact on classroom social dynamics – a PhD project overview**

This talk provides an overview of my PhD project of which the broader topic is teachers' impact on classroom social dynamics. Study 1 addressed teachers' goals and strategies when creating classroom seating arrangements. We found that teachers sometimes apply different strategies for the same goal, they sometimes use the same strategies for different goals, and they select goals and strategies based on individual and group needs. In study 2 we tested the effectiveness of a seating intervention aimed at supporting victimized students. We found that sitting next to their best friend and far away from their bullies surprisingly did not improve victims' wellbeing. Study 3 addressed teachers' (non-)attunement to victimization, its development, and the associated explaining factors. We found that teachers overlook approximately 50% of students who peers consider to be victims, that attunement is relatively stable over time, and that when teachers think a student is popular they are less likely to see that this student is also a victim. In study 4, for which we are currently processing the data, we test whether movement through the classroom is indicative for

students' social standing in the classroom. We will examine whether popular, liked, withdrawn, and socially anxious students differ on movement indicators such as the time they spend in proximity to others or the distance they keep to others. Together, these studies offer more insight into the role of teachers in actively managing and improving classroom social dynamics.

2. Sixtine Omont-Lescieux, André Knops, & Ilse Coolen: **There is no inhibition construct, only task-specific inhibitory skills with unique contributions in the development of arithmetic skills in 5-, and 7-year-old children.**

Domain-specific factors such as symbolic (e.g., Arabic digits) and non-symbolic (e.g., sets of objects) quantity processing and domain-general factors such as inhibition contribute to the development of mathematical skills. Their respective interrelations across development are less well understood. In this cross-sectional study we explore (a) the structure of inhibitory control measured through three different tasks on the one hand and symbolic and non-symbolic quantity arithmetic skills on the other and (b) the contributions of inhibition to symbolic and non-symbolic arithmetic in 2 cohorts with 174 5-6-year-old-children and 157 7-8-year-old-children. Using Structural Equation Modelling, our results first strongly question a) the presence of a unitary or even binary (Response Inhibition and Distractor Suppression) inhibition construct at the ages of 5 and 7 years in light of the poor correlations between our different inhibition measures. Second, we observe a link in 5- and 7-year-olds between Response Inhibition (measured through a Stop-Signal Task) and symbolic arithmetic, and a link between Distractor Suppression (measured through a Flanker task, but not a Bivalent Shape Task) and non-symbolic arithmetic only at 7-year-olds. Therefore, the findings reveal changing patterns across development and depending on the format (symbolic vs. non-symbolic) of arithmetic problems, with a stronger association between inhibition and arithmetic for older children. The current study allows to dissect the differential contributions of inhibition tasks to arithmetic development in a critical time window.

5. Lena-Emilia Schenker: **Does Your Teacher's Praise Make You Feel Less Smart? A Virtual Reality (VR) Experiment**

Can a teacher's praise do harm? Challenging the common belief that teacher praise makes students feel more competent, we hypothesize that teacher praise can make children feel less competent. This flash talk presents preliminary results of a preregistered experiment investigating possible adverse effects of teacher praise on students' academic self-views. Research suggests that when children witness one out of two equally performing students receive praise, they perceive the praised child as less smart (Schoneveld & Brummelman, 2023). They infer that the praised child worked harder and must therefore be less smart. Extending this finding, we examine whether receiving praise, while an equally performing classmate does not, makes children feel less smart but more hardworking. Children (8 – 13 years old) complete tasks in a Virtual Reality (VR) classroom along with a virtual classmate. Afterwards, both students receive bogus feedback indicating they achieved the same score. Then the teacher praises (1) the participant but not the classmate or (2) the classmate but not the participant. We then measure children's self-perceived ability and effort. Data collection will run from March through June 2024. Our target sample size is 140. We will present preliminary findings based on a sample size of approximately  $n = 70$ . Because negative self-views can undermine academic achievement (Marsh & Craven, 2006), the study may offer insights into how well-intentioned teacher praise can, under certain circumstances, contribute to poorer achievement.

**Poster Sessions (14:45-16:00). Dante Foyer****1. Charlotte Amesz, Marieke Buil, Kim Bul, Marloes Rauws, Keshia Curie, Athanasios Maras, & Patricia Vuijk: Examining Co-Rumination and Internalizing Problems in Dutch Adolescent Girls: Study Protocol of an Observational Repeated Measures Study**

Background. Co-rumination – a maladaptive pattern of excessive, pervasive negatively focused interactions about personal problems or distressing experiences – is an interpersonal emotion regulation strategy that becomes more prominent in friendships during adolescence, especially for girls. A major aspect of co-rumination is self-disclosure: the sharing of personal thoughts and emotions with a close friend. Ample studies found associations between co-rumination and internalizing problems. However, as co-rumination also strengthens friendship closeness and quality, youths find it hard to disengage from using this maladaptive communication pattern. Interestingly, not all youth who frequently engage in co-rumination display high levels of internalizing problems. Methods. The current study uses a real-time observational design to gain more in-depth insights in co-ruminative conversations between Dutch adolescent girls and under which circumstances girls are at risk of developing internalizing problems due to co-rumination. We will use an observational repeated measures design to study co-rumination in 150 female friendship dyads (N = 300 girls) aged 13 to 15 years, with an interval of six months between T1 and T2. Co-rumination will be observed using the Problem Talk Task (Rose, 2014) as well as measured via self-reports (CRQ-short). The association between co-rumination and the development of internalizing problems and friendship quality will be analyzed using multilevel models. We will also add potential moderators to these analyses. Discussion. The results of this study will indicate at which girls our school-based intervention program (in development) aimed at reducing co-rumination should be targeted.

**2. Nina Chmielowice-Szymanski. High Social Rank & Social Behavior in Emerging Adults: Comparing Popularity & Likeability to Dominance & Prestige in a Cooperative & Competitive Task**

Popularity and likability are widely used constructs to describe social rank in developmental psychology. In social psychology, however, dominance and prestige are used to capture seemingly similar rank asymmetries in adults. To better understand whether both dichotomies tap into similar or different social interaction profiles, associations of popularity, likability, dominance and prestige with social behavior in a cooperative and competitive group task were examined. 329 young adults completed a cooperative and competitive survival task with unfamiliar peers in groups of 4 in an online session. Participants reported their popularity, likability, dominance and prestige prior to the online session. Independent coders conducted detailed coding of social behavior including positive and negative behavior, engagement, skillful leadership, influence, dominant behavior and submissiveness. Likability was characterized by positive behavior ( $F(1,233) = 7.46, p = .007$ ) and engagement ( $F(1,233) = 6.47, p = .012$ ). Popularity was characterized by skillful leadership ( $F(1,233) = 4.83, p = .029$ ), influence ( $F(1,233) = 4.71, p = .031$ ), and dominant behavior ( $F(1,233) = 5.56, p = .019$ ). Prestige was characterized by positive behavior ( $F(1,281) = 8.15, p = .005$ ), engagement ( $F(1,281) = 12.73, p < .001$ ), skillful leadership ( $F(1,281) = 16.13, p < .001$ ) and influence ( $F(1,281) = 16.96, p < .001$ ). Dominance was characterized by negative ( $F(1,281) = 9.92, p = .002$ ) and dominant behavior ( $F(1,281) = 6.60, p = .011$ ). Only associations of likability with social behavior differed across a cooperative versus a



competitive context. Overall, behaviors associated with high social rank differed across all four status measures.

**3. Keshia Curie: Effectiveness of a blended school-based mindfulness program for the prevention of co-rumination and internalizing problems in Dutch secondary school girls: Study protocol of a cluster randomized controlled trial**

The adolescence is a vulnerable period characterized by the search for identity and autonomy. Close peer friendships become of critical importance, implying important influences on emotion regulation during stress, including the regulation of both affective and physiological responses. Self-disclosure, something to which girls are more inclined than boys, becomes an important emotion regulation strategy. Self-disclosure between close female friends escalating into co-rumination, implies benefits as well as risk on the individual and dyadic level: co-rumination enhances the quality of friendships among female adolescents, while simultaneously increasing the risk of internalizing problems. Currently, there are no evidence-based targeted prevention programs available aimed at preventing excessive co-rumination and internalizing problems in girls. The Happy Friends, Positive Minds (HFPM) cRCT evaluates the short-term and long-term effect of the HFPM school-based mindfulness program in a sample of 320 Dutch girls aged between 13 to 15 years. This program primarily aims to support girls in developing different evidence-based mindfulness skills on the dyadic level. This program comprises a weekly training, guided by the 'Happy Friends app', which support the development of mindfulness skills in their daily life. Data will be gathered at six different time points over a span of 2 years, commencing with a baseline measure and ending with a 1-year follow-up. We will measure the degree of anxiety and depressive feelings, as well as a sense of control over one's own life and the quality of friendships. Secondarily, HFPM aims to study how implementation factors will impact the effectiveness of this prevention program.

**4. Yvonne Grootjans: EEG measures of self-regulation and mental health outcomes in adolescents**

Young people encounter many societal challenges while growing up. The Growing Up Together in Society (GUTS) project is a longitudinal study of seven universities in the Netherlands spanning over 10 years. The GUTS project will investigate how neurobiological and social-cognitive factors interact with social and societal opportunities in becoming a contributing member of society. The present study design, as part of the GUTS project, will investigate why some adolescents develop mental health problems while others do not. Electrophysiological activity will be recorded while participants perform the social flanker task, the go/no-go task, and a social reward task, all measuring processes related to self-regulation, such as error processing, inhibition, and reward processing. The error-related negativity (ERN) has been associated with error processing and inhibition and appears to change in magnitude across development. The ERN has shown to be increased in internalizing disorders (e.g. anxiety disorders) and decreased in externalizing disorders (e.g. substance use disorder). Therefore, the ERN might be a useful marker of risk to predict longitudinal increases in several mental health problems. The goal of this poster is to receive feedback on the current study design and inspire collaborations.

**5. Nil Horoz, Nienke van Atteveldt, Pol van Lier, Tanja Houweling, Joost Oude Groeniger, Frank van Lenthe, Hans Koot, & Marieke Buil: Context Matters: norm salience towards aggression**

**moderates the association between parental education and childhood aggressive behavior development**

Children of lower-educated parents, on average, are more likely to develop higher levels of aggressive behavior compared to children of higher-educated parents throughout elementary school. In order for all children to reach their full potentials in their development and to promote overall well-being, it is critical to determine the factors that may differently impact aggressive behavior development. This longitudinal study examined a novel contextual factor within the classroom peer environment, namely development of classroom norm salience towards aggression, as a moderator of the association between parental education and children's aggressive behavior development from third to sixth grade. Children (N = 1,205, 51% girls) from 46 mainstream Dutch elementary schools were annually followed. Results from multi-level latent growth models showed that only the development of the norm and not the norm in third grade was a significant moderator. Overall, results suggested that in third grade, children of lower-educated parents showed higher levels of aggressive behavior than children of higher-educated parents, irrespective of the norm. However, in classrooms where norm salience became more favorable towards aggression over time, children of lower-educated parents showed a slower growth rate of aggressive behavior levels than children of higher-educated parents from third to sixth grade. In classrooms where norm salience became less favorable towards aggression over time, the development of aggressive behavior was similar for all children. Findings may suggest that norm salience towards aggression become increasingly important already in elementary school and that children of higher-educated parents may be more able to adapt their behaviors towards the salient norm.

**6. Sabrina Jabroun, Marieke Buil, Sander Hilberink, & Patricia Vuijk. The Girls United study: Examining the association between elementary school girls' friendship dynamics and their social, emotional, and academic development.**

Dutch elementary school girls are struggling with their mental health. Trend research by the University of Utrecht has shown that internalizing problems among elementary school girls have been doubled between 2017 and 2021, from 14 to 33%. At the same time, the influence of close friends increases during late childhood and early adolescence: self-disclosure, sharing personal thoughts and emotions with peers, becomes an important strategy during this period to regulate one's own unpleasant and pleasant emotions and thoughts. When self-disclosure escalates into co-rumination, girls are at elevated risk of early onset internalizing problems. In this study, we aim to study daily real time and online positive and negative friendship dynamics among 200 girls' friendship dyads from 5th and 6th grade. through a smart-phone based diary study (study 1). The second objective is to study co-rumination patterns and to examine its impact on emotional well-being and school-functioning (study 2). Both studies will also study the influence of the home- and classroom context on the abovementioned processes, investigated in study 1 and 2. Both studies aim to include the same N = 200 friendship . This study will be one of the first to include a diary study on friendship dynamics among friendship dyads in late elementary school.

**7. N.L. Komrij, M.P. Kösters, F. Scheper, P.M. Westenberg, M.F. Soppe, L. Saray, L.J. Vreeke: Cool Little Kids: an online targeted group-based parenting program to prevent the development of anxiety disorders in inhibited toddlers**

Anxiety disorders are one of the most common forms of psychopathology. The high burden of disease, along with the large rates of under-treatment and low help-seeking behavior, emphasize

the importance of early prevention (Mian, 2014). Literature shows that targeted, group-based parenting programs are potentially the most effective in preventing anxiety in young children (Wolgensinger, 2015). Unfortunately, such programs are often hard to implement sustainably within the regular service (Olofsson et al., 2016). Online interventions could address these issues, by making the intervention more accessible. Yet, research on online parenting programs focusing on the prevention of anxiety are scarce. Hence, we investigated an online targeted group-based parenting program aiming to prevent the development of anxiety in children aged 3-6 years living in the Netherlands that is based on the Dutch version of the Australian Cool Little Kids (CLK) program: a six-session group-based training for parents of inhibited toddlers (Rapee et al., 2005). The protocol of the original CLK-intervention was followed, but was executed via the video conferencing platform 'Zoom'. The program was implemented in collaboration with several child (mental) health organizations, who are involved in the screening and recruitment of parents of inhibited children and the execution of the program. Therefore, our intervention was studied in its real-life circumstances. Our poster will include the results of the implementation of the intervention in its real-life circumstances including clinical implications.

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8. Ines Lucieer, Emma Roza, Nicole Lucassen, Bruno Bocanegra, Jennifer Clegg, Katherine Rice Warnell, Joyce Weeland, & Rianne Kok: **Practice What You Preach? Exploring Parental Attitudes Toward, Modeling of, and Teaching About Lying Among Parents**

A growing number of studies show that most parents lie to their children. Paradoxically, most parents also disapprove of lying to their children and teach their children that lying is not acceptable, suggesting that parents do not always practice what they believe or preach. This preregistered study is the first to explore how aligned parents are in terms of their attitudes toward lying to children, lie-telling (i.e., modeling), and teaching about lying for three types of lies: lies benefiting another, benefiting the self, and intended to influence another's behavior. Cross-sectional data were gathered from May 2022 to May 2023 from 312 Dutch parents (79.8% mothers) via an online questionnaire. Correlations and Latent Profile Analyses were performed to assess alignment at both the group and individual parent levels. Correlations ranged from  $r(310) = .24$ , to  $.69$ ,  $p < .001$ , and differed significantly per type of lie. Within-parent analyses showed that, across all three types of lies, most parents were discrepant rather than aligned in their attitudes, modeling, and teaching. Interestingly, alignment was found only for lies benefiting another: 45.6% of parents showed alignment, while 54.4% showed a degree of discrepancy between their attitudes, modeling, and teaching. For both lies benefiting the self and lies to influence another's behavior, all parents were discrepant. Moreover, the nature of the discrepancy varied depending on the specific parental profile and type of lie. At the VNOP Conference 2024, we will present detailed results and discuss the implications for research and practice.

9. Magda Matetovici, Cristina Colonnese, Mauricio Garnier Villarreal, Anouk Spruit, & Marc Noom: **Gender Effects in the Relationship between Attachment to Parents and Prosocial Behavior in Early Childhood**

Parent and child gender are typically considered separately when it comes to potential moderating effects on the relationship between attachment and prosocial behavior. However, attachment consists of a one-to-one relationship whose dynamic is influenced by both the parent and the child. In this study, we take a dyadic perspective and investigate differences among mother-daughter, father-daughter, father-son, and mother-son attachment when it comes to the prosocial behavior of children. We zoom in on the four attachment styles: secure, avoidant, ambivalent, and disorganized. To answer our question, we perform a Bayesian multigroup structural equation modeling analysis using a sample of 446 independent pairs of parents and preschool children (2 to 5 years old) from the Netherlands. We discuss the results in terms of implications for interventions that support prosocial behavior in early childhood and for theories about the role of gender in how the parent-child relationship might be linked to prosocial behavior.

10. Jiajun Mo: **A Cross-Cultural Study of the Roles of Personal Cultural Values in Domain-Specific Mistrust in Upper-Elementary School**

Early adolescence is a critical period for flourishing trust or breeding mistrust. Mistrust has mostly been studied in western contexts; however, we know little about domain-specific mistrust (i.e., general, teacher, and peer) and how findings generalize to Eastern contexts. The present study examined measurement invariance and mean differences of domain-specific mistrust between countries, as well as the roles of individual cultural values in such differences. In total, 1065 early adolescents from the rural and urban Netherlands (N = 248) and southern China (N = 817) reported about their domain-specific mistrust and personal cultural values. Results from the multiple group analyses showed that domain-specific mistrust and cultural values reached partially strong invariance. Compared to the Chinese students, Dutch students reported lower levels of general mistrust and higher levels of peer mistrust. Results from the mediation analyses showed that risk aversion and interdependency partially explained the cross-country differences in general and peer mistrust, and fully explained the teacher mistrust differences. Findings suggest that domain-specific mistrust were different across countries, and personal cultural values may play a unique role in such differences. Implications and suggestions for future research were discussed.

11. Merlin Nieterau: **How parenting may impact child disruptive behavior: An experience sampling study proposal**

This study proposes an in-depth investigation by examining how disruptive child behavior, parental warmth, and harsh parenting precede or co-occur with disruptive child behavior during naturalistic parent-child interactions. Using an intensive longitudinal approach with multiple measures a day, we aim to unravel the nuanced factors contributing to disruptive behavior during middle childhood. A sample of 200 parents with children aged 3 to 8 years old will participate in this study. Using experience sampling (ESM), participants will report on disruptive child behavior, parental warmth, and harshness up to 6 times a day for 12 days. We will conduct dynamic structural equation modeling (DSEM) to evaluate within-family dynamics and between-family

differences therein. We hypothesize that there will be (1) a carryover effect of child disruptive behavior from one moment to another, (2) cross-lagged effects on child disruptive behavior, with intensifying effects of harsh parenting but mitigating effects of parental warmth, and (3) between-family differences in these within-family processes, such that we expect different processes for families that reported more disruptive child behavior and parental mental health problems at baseline. Results could offer a more comprehensive understanding of how various risk factors contribute to disruptive child behavior within different families.

## 12. Maria Nygaard: **Prospective memory and strategy use in aging**

Prospective memory (PM) is the ability to plan and carry out a specific intention in the future (e.g., taking one's medication on time). Previous literature suggests most memory errors in aging are due to failures in PM and that PM ability is predictive of maintaining independent living in older age. However, there is a lack of research into older adults' own perception of their memory errors and how they conquer them in daily life. Therefore, the current study has three aims: 1) to investigate the most common PM errors in everyday life, 2) to explore strategies used by older adults to overcome these errors, and lastly 3) to explore which strategies are most effective in the older adult's own perspective. Fifteen older adults (aged 55-86) took part in semi-structured interviews, which were analyzed using inductive Thematic Analysis to extract common themes. Results suggested that older adults are most bothered by PM failures which impact others (e.g., forgetting to meet a friend). Awareness of memory errors and living with a partner were also considered important factors for PM. Further, external aids (e.g., calendars) were most commonly used to conquer these errors. These findings suggest that social motivation and meta-awareness of PM errors are important issues in older adults. The results have the potential for practical impact by informing the development of more effective strategies to conquer PM errors and aid independent living in the aging population is created.

## 13. Constantina Psyllou: **Exploring Gender-Differentiated Parenting in the Context of Behavioral Parent Training: Boys and Girls with ADHD are Treated Differently by their Parents**

Introduction: Behavioral parent training (BPT) is established as an effective treatment for Attention-Deficit/Hyperactivity Disorder (ADHD); however, prior intervention studies predominantly focused on male samples, leading to a bias in our understanding of BPT effects. Although there are well-documented biological sex differences in ADHD presentation and medication response, meta-analyses do not find sex differences in BPT effectiveness. Nevertheless, parents may hold gender role attitudes regarding their child's behavior, suggesting potential differential parenting of boys versus girls with ADHD. This could potentially play a role in predicting heterogeneity in BPT effectiveness across children's sex. Method: We conducted an individual participant meta-analysis, including data from 15 randomized controlled BPT trials for children with ADHD under 18 years of age ( $n = 1198$ ). Gender-differentiated parenting practices, as classified using the Bem Sex Role Inventory into positive and negative feminine or masculine parenting, were first regressed on child sex. Second, we investigated the effects of BPT on parent ratings of children's severity of ADHD and oppositional behavior in interaction with child's sex and gender-differentiated parenting. Results: Parents use more negative masculine parenting towards boys compared to girls, regardless of the child's levels of oppositional behavior. The effects of BPT on child ADHD and oppositional behavior do not vary between boys and girls based

on gender-differentiated parenting practices. Discussion: Our findings suggest that there are sex differences in the parenting of children with ADHD. However, although parents have differential expectations of behavior based on the sex of their child, these may not predict differential treatment for boys versus girls.

#### 14. Nithila Ramesh: **Personality Trait Change During the Transition to University: Does University Shape Character?**

Young adults experience changes in personality traits due to biological processes like maturation and (normative) life events that expose them to multiple complex challenges specifically during this period. This study explored whether the personality trait development of young adults who attend university differs from their peers who do not attend university. We used latent growth curve models to study differences in the Big Five trait levels and changes of 439 university students and 505 comparable young adults from the last year of high school up to five years later. We found that university students had higher initial levels of Openness compared to their non-university peers but did not differ in terms of the other trait domains. In line with personality maturation, the young adults increased in Conscientiousness and Emotional Stability at a similar rate for both groups. The only difference in personality change was a decline in Extraversion unique to the university student sample. Taken together, studying at university does not seem to have a unique and systematic effect on Big Five trait development compared to the alternative transitions after high school. This is potentially due to influential events like moving out and finding a long-term romantic partner being common to both life paths. Further, the heterogeneity in the experience of studying or working after high school may be causing a lack of differences in personality trait development when looking at mean-level changes between the two groups.

#### 15. Karen Rienks, Elske Saleminck, Patty Leijten: **Targeting Parental Risk Factors for Children's Anxiety: A Factorial Experiment With Three Intervention Components**

Background: Anxiety is one of the most common mental health problems in childhood, and causes severe and persistent impairment in children's lives. Parents can play a key role in the development of children's anxiety symptoms. Yet, the effects of parent-focused interventions are limited and inconsistent. Traditional randomized trials of these 'package deal' interventions provide little insight into what specific parental risk factors should be targeted to most effectively reduce children's anxiety. We will examine the effects of targeting three distinct parental risk factors using specific intervention components. Methods: We aim to include 266 parents of children aged 7;0 to 11;11 years in a factorial experiment with random allocation to any possible combination and order of (i) reducing family accommodation, (ii) increasing empathetic reactions, and (iii) reducing maladaptive parental cognitions about children's anxiety. Assessments will take place at baseline (T0), after the first component (T2), after the final component (T6), and six weeks after the final component (T12). Each component consists of a therapist-led videocall intervention and fourteen daily assignments. Data will be analyzed using ANCOVA-based methods following intention-to-treat principles, with baseline levels of the dependent variable as a covariate (preregistration: doi:10.1016/j.jaac.2024.01.013). Results: There are currently 40 families enrolled in the experiment. At the VNOP conference, we will share preliminary findings on intervention engagement and satisfaction. Implications: Knowledge on the most effective intervention components can guide future intervention development, and contribute to our understanding of the role of parents in children's anxiety.

**16. Christophe Romein: Cannabis use, social cognition, emotion recognition and the brain: a systematic review of neuroimaging studies**

One of the most significant predictors of substance use during adolescence is the proportion of substance using peers. At the same time, we also hypothesize social context to serve as a protective factor during (early) adulthood when rates of substance use and addiction decline as users move into more responsible roles such as serious employment. To study this social plasticity model of cannabis use and addiction, it is vital to outline the findings of currently available research on cannabis use, social cognition, emotion recognition and the brain. Reviews that have been written previously mainly focus on social cognition and substance use in its entirety with no specific focus on the brain and cannabis. The present systematic review aims to elucidate the relation between neural processes underlying social cognition, emotion recognition, and cannabis use. It provides an overview of neuroimaging studies that focus on the association of cannabis use with behavioral and neural indices of social cognition and emotion recognition. Included study designs involve any type of neuroimaging, different degrees of cannabis consumption (control, recreational, and dependent), and some form of experimental or self-report measurement of emotion recognition or a sub-type of social cognition (e.g., theory of mind, social influence etc.).

**17. Emma Roza: Systematic Observation of Parental Lying in Parent-Child Interactions: A Novel Coding Scheme**

**Introduction:** Many parents across the world admit to lying to their children. So far, studies have only used parent- or child-report questionnaires measuring parental lying. Although these questionnaires captured various salient and conscious parental lies, they likely provide only an indication of actual parental lying. Behavioral observations could contribute substantively to self-report methods by avoiding informant biases and capturing more casual and subconscious types of parental lies. Therefore, we present a novel systematic coding scheme for observing parental lying to children. **Methods:** Based on our literature review and qualitative interview study, we designed a novel observational coding scheme for measuring parental lying in parent-child interactions. Audiovisual footage of parent-child interactions (862 dyads) during structured discipline task contexts (clean-up/don't touch;  $\pm 7$  minutes) at child age 3, from a large national cohort study, are being coded. **Preliminary Results:** In a pilot sample of 25 video's (16% fathers), 201 statements were identified as (potential) parental lies (3.99% not certain). Lies were told for various reasons, for example, to elicit behavioral compliance by using fantasy (30.35%; e.g., "The baby doll is very tired, it wants to sleep in that box" while cleaning up toys) or by communicating false threats (9.95%; e.g., "We have to clean up, otherwise that lady will get very angry"). **Discussion:** Our preliminary results suggest that systematic coding of observed behavior is a feasible new method of measuring parental lying. At the VNOP Conference 2024, the observational coding scheme, reliability estimates, and preliminary results will be presented.

**18. Lisanne Schroer, Victoria Talwar, Maartje Luijk, & Rianne Kok: Infant-parent attachment and lie-telling in young children: Evidence from a population-based cohort study**

In adulthood, there is an association between attachment quality and lie-telling. However, it is unknown whether such a relation is present in early childhood when lie-telling first develops. In this study, we are the first to examine the relationship between infant-parent attachment and lie-

telling development. There are two competing hypotheses: (1) lie-telling in early childhood might be related to attachment insecurity, as in adults, or (2) lie-telling might be related to attachment security, as lie-telling in early childhood is considered advancement in social-cognitive development. The association between attachment and cheating was explored as lie-telling was studied in the context of cheating behaviour. 560 children from a Dutch longitudinal cohort study were included in the analyses. The Strange Situation Procedure was used to assess secure/insecure and disorganized/non-disorganized attachment with primary caregiver at 14 months. Cheating and lie-telling was observed in games played at age 4. These games were impossible to win if the child followed the rules, however, an attractive reward was promised for winning. Logistic regressions and chi-square analyses demonstrated that there was no relationship between attachment security and disorganization, and lie-telling ( $p = .198$ ,  $p = .282$ ). Furthermore, no association between attachment quality and cheating was found ( $p = .107$ ). Results are interpreted in light of evidence that lie-telling in early childhood is part of normal development, and not maladaptive nor social-cognitive advancement. Limitations include the fact that lie-telling is assessed towards a researcher instead of towards the caregiver, and the time lag between assessments of attachment and lie-telling.

19. Viola Siegmeier, Katrijn Van Deun, & Yvonne Brehmer: **Exploring How Children's Talents Are Linked to Their Quality of Life and Academic Success in the Dutch Primary School Context**

Positive education emphasizes well-being alongside academic success. Hence, strengths-based interventions aim to support youth in exploring and applying their character strengths and enhancing their well-being through tailored activities within the school context. A novel talent program has been introduced specifically to support (younger) children in discovering and utilizing their talents, defined as activities that generate happiness in children. Initially developed for talent interviews for children, this talent program has been implemented in various schools across Belgium and the Netherlands yet lacking scientific investigation. This study addresses this gap by exploring the relationship between children's talents and their quality of life and academic success. In particular, the present study investigates how (a) the number of talents, (b) the applicability of talents at school, and (c) the type of talents indicated by children themselves are related to their quality of life and academic success. A total of 113 Dutch primary school children (aged 8-13 years), which worked with the talent program since several years, have been assessed twice via online questionnaires across two weeks during regular school hours. Variables assessed included children's perception of their familiarity with, and possession of the 39 talents, and their perception of their ability to apply their talent at school. Further, quality of life was measured using the KID-SCREEN 52 questionnaire and academic success was measured using the average grade IEP scores. These findings are relevant for understanding the role of talents in educational settings and refining the talents program integration into the curriculum.

20. Shivangi Singh: **Navigating Generational Shifts: A Study on Enhancing Parental Self-Efficacy in 21st-Century Indian Families**

More than 20% of all children worldwide are born in India, a traditionally patriarchal and collectivistic nation. Today's children and adolescents in India want more autonomy in decision-making than previous generations did. Consequently, Indian parents may feel less successful in raising children whose values fundamentally differ from their own. We will pilot-test the effects of online, scalable, single-session counselling on parental self-efficacy, parenting behaviour,



parent mental health and child adjustment. Eighty parents of children aged between 6-14 years from urban, middle-class, English-speaking families will be randomized to either the intervention—which will be less than two hours in duration—or a no-intervention control condition. The intervention component will be based on verbal persuasion, social comparison, and mastery experience—Bandura’s principles for enhancing self-efficacy—adapted to the sensibilities and values of Indian parents. The analyses will be completed by May. The study conclusions will aid in our understanding of Indian families as well as other communities dealing with intergenerational conflicts as a result of rapid cultural change, such as immigrant and refugee families. Our findings will also shed light on the effectiveness of single-session counselling for Indian parents.

*Keywords:* self-efficacy, parenting behaviour, child adjustment, intergenerational conflict, single-session counselling

### 21. T.S. Todor, I. Cornelisz, C. van Klaveren, & B.R. Braams: **Prevention of adolescent risk-taking behavior through early identification**

Adolescents show more risk-taking behavior than children and adults. Most adolescents do not experience adverse consequences of increased risk-taking behavior. However, excessive risk taking can result in long term adverse consequences. To better target prevention efforts at adolescents who are at risk for excessive risk taking, these adolescents should be identified early. Early identification requires accurate prediction of future risk-taking behavior. Here we first test which statistical approach is best suited for prediction of risk-taking behavior. We compare out-of-sample prediction performance of three different forms of Ordinary Least Squares (OLS) regression models and a Least Absolute Shrinkage and Selection (LASSO) model. We use data from a large, three wave longitudinal sample with 298 participants between the ages of 8-25 at the first measurement. Participants were measured a total of three times, with a two year interval. Results show that the LASSO model outperforms all three OLS regression models on out-of-sample prediction for prediction of risk taking two years later. None of the models performs well for prediction of behavior four years later. We then use the LASSO model to determine a criterion value of who is at risk for excessive risk-taking behavior in two years. This criterion value can be used for early identification of individuals at risk and can provide guidance on decisions about prevention efforts.

### 22. Deni Tressová: **Identity and Personality Pathology in Adult Forensic Psychiatric Patients and Healthy Controls**

The majority of offenders is characterized by personality pathology. To reduce criminal behavior and recidivism, personality pathology has become a crucial part of the assessment and treatment within the forensic psychiatric field. Since the release of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, an alternative PD model was presented where identity has become an important indicator of PDs. In case of disturbances in identity functioning, individuals are not able to experience themselves as unique, have vague boundaries between self and others, have poor or unstable self-esteem, have difficulties with self-appraisal and poor emotion regulation. Despite the importance and clinical relevance of identity and its development throughout life, there is a lack of identity research focusing on adult populations and especially adult forensic psychiatric populations who showed criminal behavior and where one can expect a stronger association with identity malfunctioning compared to general adult populations. The present study addresses this issue by investigating the associations between

identity (mal)functioning and personality pathology in adult forensic psychiatric patients. It uncovers the identity dimensions and clinically relevant identity constructs in adult forensic patients and how this identity functioning relates to each other as well as to personality pathology, each time in comparison to a non-clinical control sample.

**23. Stefania-Maria Vasilaki, Geertjan Overbeek: Intergenerational Transmission: Does Parents' Trauma Predict Infant's Externalizing Problems Through Harsh Parenting?**

Externalizing problems in early childhood is a common phenomenon that affects many children and that has been associated with the development of psychopathology later in life. Harsh parenting and parenting stress are key predictors of such externalizing problems, which can be traced back to parents' history of childhood maltreatment. Many studies embrace the proposition that parenting practices are intergenerationally transmitted, with parents in one generation engaging in similar parenting practices to that which they were exposed to as children. Additionally, parents with a history of childhood maltreatment are more likely to adopt harsh parenting practices and develop a maladaptive stress reactivity which can lead to high levels of parenting stress. The main purpose of this study is to identify a process of intergenerational transmission, through examining the longitudinal association of parental childhood maltreatment with subsequent externalizing problems in the infant, through parenting stress and harsh parenting practices —controlling for a reverse longitudinal association (i.e., from externalizing problems to subsequent parenting stress and harsh parenting). Data for the present study are drawn from the Joint (Epi)genetics Of Parenting And stress-Reactivity in the Development of Youths (JEOPARDY) study. Participants are 79 parent-infant dyads (one child per family with infants aged 12-14 months old). Study results are expected to help us identify the underlying mechanisms that link parental childhood maltreatment with the infant's externalizing problems. In this way, we can better support parents who have a history of childhood maltreatment by focusing on interventions that target parenting stress and promote healthy parenting practices.

**24. Emmie Verspeek, Yvonne Brehmer, Joran Jongerling, Alexandra Hering, Manon van Scheppingen: Expecting to Relocate to a Nursing Home: Longitudinal Associations with Health and Well-being**

Successful aging strategies emphasize the importance of preparation for- and adjustment to age-related challenges such as relocation to a nursing home. Older adults can prepare for this type of relocation by expecting the occurrence of this event to become more likely over time. In turn, this expectation can potentially reduce the negative impacts of relocation to a nursing home. This study examined (a) to which extent lower levels and decline in health (i.e., functional limitations and self-rated health) and well-being (i.e., life satisfaction) before relocation were associated with higher levels and increases in expectations to relocate, and (b) to which extent higher expectations to relocate were associated with more positive changes in health and well-being after relocation. Older adults (aged 65 years and older) who permanently relocated to a nursing home were selected from the Health and Retirement Study (2006-2018). Bivariate latent growth curve models assessed the longitudinal associations between expectations, health, and well-being from up to seven years before ( $n = 1048$ ) until up to five years after the relocation event ( $n = 307$ ). As hypothesized, more functional limitations and lower self-rated health were related to higher expectations to relocate. Yet, changes in health and well-being before relocation were not

linked to changes in expectations to relocate, neither were expectations to relocate associated with changes in health and well-being after relocation. More research is needed to provide insights into the complex nature of preparation for challenges in older age, and how various forms of preparation can facilitate successful aging.

## **Symposium 1 (Parallel Session 16:00-17:15): DZ1**

**Symposium title:** Youth participation beyond the buzzwords: Concrete examples and best practices

**Chair:** Lysanne te Brinke

**Symposium abstract:** Participatory research methods – where individuals with lived experiences and insider knowledge actively contribute to multiple phases of the empirical cycle – have recently gained more attention from researchers in the field of developmental psychology. Although the general consensus seems to be that participatory approaches prioritize co-constructing research through active involvement of end-users, and can thus be distinguished from non-participatory approaches in which end-users have a passive role (e.g., as research subjects), many different forms of active involvement are used, sometimes intertwined with one another. Buzzwords in the youth participation field are for example co-creation, co-design, youth panels, citizen science and action research. In this symposium, we bring together four participatory research projects, in order to provide attendees with concrete examples, and collaboratively define best practices of youth participation in research. In the first talk, potential pitfalls and benefits of different forms of participatory research methods are discussed from a transdisciplinary perspective. In the second talk, an example of a youth expert panel that advises researchers in different phases of a research project on parental divorce is discussed. In the third talk, we zoom in on the qualitative participatory Group Model Building approach, where researchers and youth collectively define the causes of mental health difficulties among adolescents growing up in disadvantaged neighborhoods. Lastly, the fourth talk touches upon the potential benefits of co-creation as an intervention strategy.

### **Speaker and presenters**

#### **A transdisciplinary perspective on youth participation in research and policy.**

*Lysanne te Brinke*

The current generation of adolescents and early adults is growing up amidst multiple societal challenges, such as climate change and increased social inequalities. Active participation and involvement of adolescents may have positive outcomes, through increased feelings of purpose, meaning, and respect. Moreover, active participation of youth in policy, may foster the development of policies that better meet the needs of youth. But how can we make the voice of all youth heard, in order to reduce inequality and optimize policy? Is more participation always better? What are the pitfalls and benefits of different participation methods, and how can participation methods best be matched with research questions? In this presentation, I aim to provide answers to these questions, based on a transdisciplinary perspective on youth participation, that was

developed across two large-scale research initiatives:

- 1) The Healthy Start program on youth participation and involvement, where researchers from different disciplines (e.g., developmental psychology, human-centered-design) collaborate with societal stakeholders (e.g., youth workers, the municipality) and youth, with the goal of improving the participation and involvement of unheard youth in Rotterdam.
- 2) The YoungXperts youth participation platform, where not we – researchers – but adolescents themselves are viewed as the experts in their own development. The goals of this platform are 1) to make scientific knowledge accessible to youth, 2) to collaborate with youth and stakeholders (e.g., youth workers), and 3) to use developmental science to empower the voices of youth and foster positive development.

### **Walk the walk: Youth participation in research on child participation in divorce-related decisions.**

*Van Dijk, R., Rejaän, Z., Mol, C.R., Van der Valk, I.E.*

Parental divorce is a stressful life event and affects numerous children and adolescents worldwide. The reorganization of family relationships and routines inevitably requires many decisions. Despite a growing interest of the clinical & legal field, researchers, and various media, empirical knowledge on how to best facilitate children's right to participate in such decisions is lacking. In the large scale research project 'Hear, hear!' we aim to substantiate how children's need for post-divorce self-determination can be nurtured in families, mediation, and court by: 1) Identifying the current practice of child participation in the context of divorce in the Netherlands, 2) examining its general risks and benefits for child adjustment, and 3) test for differential effects on children's self-determination, boundary diffusion, and adjustment. In order for our research to meet children's needs and relate to their worlds to the best of our abilities, a youth expert panel of 15 adolescents and young adults (aged 12-20 years) is involved as an important sounding board. During regular three-monthly meet-ups and parallel mini-projects, the panel thinks along and provides input in several phases of the research cycle. Its input for the development of the Children's Participation Post-separation Scale (ChiPPS) specific, as well as the involvement in the more general design and empirical phases of the 'hear, hear!' project will be discussed.

### **Using Group Model Building as a participatory method to understand and address the mental health of adolescents growing up in disadvantaged neighborhoods.**

*Natasha Koper, Naomi de Pooter, Isabel Koopmanschap, Margot Peeters, Mary Nicolaou, Carlijn Kamphuis, & Gonneke Stevens*

The mental health of adolescents growing up in disadvantaged neighborhoods is considered a complex problem, because of many interacting individual, sociocultural and environmental factors. Most youth mental health research and promotion strategies do not consider the perspectives of adolescents in understanding this complex problem. Yet, involving them is important as it ensures that research and health promotion strategies are relevant and responsive to their needs. Our objective is to better meet the needs and wishes of adolescents in youth mental health promotion strategies by including them in understanding the problem and developing strategies to improve the mental health of adolescents growing up in disadvantaged neighborhoods. To meet this objective, we hold several participatory sessions and three rounds of group model building (GMB) workshops in two neighborhoods in Dutch cities between September 2023 and May 2024. GMB is a participatory qualitative method aimed at engaging different

stakeholders to collectively consider the causes of complex problems. Through this participatory method, participants' understanding of the targeted problem is visually captured in the form of causal loop diagrams (CLDs). The CLD is used to identify leverage points for change and develop an action program to address the problem. Yet, GMB is usually done with adults only. At the VNOP conference, we will present:

- 1) how we used GMB as a participatory method with various stakeholders, including adolescents (12-25 years),
- 2) and – based on individual interviews – how these adolescents experienced participating in the GMB sessions.

### **Pre-Intervention Effects of a Community-Based Intervention Targeting Alcohol Use (LEF); The Role of Participatory Research and Publicity**

*Ina M. Koning, Vincent G. Van der Rijst, John B. F. De Wit, & Charlotte De Kock*

This study explores the impact of the 'pre-intervention effects' of a community-based intervention. This refers to participatory research processes and parallel publicity in the media on changes in alcohol use and relevant mechanisms (rules and norms about alcohol, accessibility of alcohol in a formal setting) among adolescents before any intervention is implemented. The aim was to investigate the contribution of these processes (i.e., pre-intervention effects) to changes in intervention-targeted factors before any actual intervention was implemented. In a quasi-experimental study, data were collected twice by means of self-report among adolescents living in two municipalities (control and experimental condition). A regression analysis showed negative pre-intervention main effects on adolescents' perceived accessibility of alcohol in a formal setting. Moreover, among adolescents aged 15 years and older, the normative decline in strictness of rules and norms was less steep in the experimental condition compared to the control condition. Additionally, adolescents aged 14 years and younger in the experimental condition reported more weekly drinking compared to their peers in the control condition. No differential effects across gender were found. To conclude, applying a co-creational approach in the development of an intervention not only contributes to more effective interventions in the end, but the involvement of and discussions in the community when planning the intervention contribute to changes in targeted factors. This implies that public discussions about the development of intervention strategies should be considered as an essential feature of co-creation in community-based interventions.

## Symposium 2 (Parallel Session 16:00-17:15): DZ3

**Symposium title:** Brain development and mental health in today's generation of children, adolescents, and young adults

**Chair:** Kayla Green

**Symposium abstract:** Adolescence is a formative period for social, affective, and cognitive development. During this sensitive period the adolescent brain undergoes various structural and functional changes. While some adolescents are vulnerable to negative developmental outcomes, others thrive and become engaging and contributing members of society. In the present symposium we will address the complex, yet, interesting association between brain development and mental health across late childhood, adolescence, and young adulthood. By incorporating distinct measures of brain structure and function, we will shed further light on how individual differences arise in mental health development across various developmental phases. First, we will present on the neural correlates of reward processing for self and others in children with prolonged peer victimization experiences. In addition, we will also share findings on how today's generation of teenagers faces challenges (i.e., experiencing COVID-19 pandemic) that may have adverse effects on structural brain development. Next, we will present the development of mood and mood variability that adolescence is characterized by, and its relation with adolescent brain development. Lastly, we will discuss how wellbeing is assessed in young adults and what the additional value of neuroimaging research can be in how we measure wellbeing. Together, this symposium will give an overview of different periods of enhanced sensitivity in adolescent development, neural correlates of mental health and its individual differences, and the various modeling techniques applied to advance knowledge of adolescent mental health.

### Speaker and presenters

#### Neural correlates of vicarious reward processing in children with prolonged peer victimization experiences

*Simone Dobbelaar, Sanne Kellij, René Veenstra, & Berna Guroğlu*

This study examined the neural correlates of vicarious reward processing and subsequent trust behavior in relation to prolonged experiences of victimization in late childhood. This study used a sample of children with prospective longitudinal data on peer victimization over the past two years ( $n_{\text{behavioral}} = 83$ , 49.4% girls,  $M_{\text{age}} = 10.6$  years,  $n_{\text{fmri}} = 62$ ). Participants played an fMRI vicarious reward task in which they could win or lose money for themselves and two other peers. The two other peers were experimentally manipulated to either include or exclude the participant in a Cyberball task prior to the task. Additionally, trust in the two peers was assessed using a one-shot trust game. Results revealed ventral striatum activation when winning (versus losing) for oneself, and activation in social brain regions when playing for excluders rather than for oneself. Prolonged victimization predicted decreased ventral striatum activation during personal rewards, and increased activation in the dorsomedial prefrontal cortex when playing for excluders rather than for oneself. Finally, prolonged victimization was associated with increased differentiation in trust

toward the including and excluding peers. Together, these findings contribute to our understanding of the social cognitions and behaviors of victims of bullying.

### **Effects of COVID-19 pandemic on structural brain development in early adolescence**

*Lina van Drunen, Yara J Toenders, Lara M. Wierenga, & Eveline A. Crone*

The COVID-19 pandemic caused a global health crisis with large behavioral effects and serious stress and social consequences. Particularly, teenagers suffered pandemic-related social restrictions including school closures. This study examined whether and how structural brain development was influenced by the COVID-19 pandemic and whether pandemic length was associated with accumulating or resilience effects of brain development. We investigated structural changes in social brain regions (medial prefrontal cortex: mPFC; temporoparietal junction: TPJ) as well as the stress-related hippocampus and amygdala, using a longitudinal design of 2 MRI waves. We selected two age-matched subgroups (9-13 years old), one was tested before (n=114) and the other during (peri-pandemic group, n=204) the COVID-19 pandemic. Results indicated that teenagers in the peri-pandemic group showed accelerated development in the mPFC and hippocampus compared to the before-pandemic group. Furthermore, TPJ growth showed immediate effects followed by possibly subsequent recovery effects that returned to a typical developmental pattern. No effects were observed for the amygdala. The findings of this region-of-interest study suggest that experiencing the COVID-19 pandemic measures had accelerating effects on hippocampus and mPFC development but the TPJ showed resilience to negative effects. Follow-up MRI assessments are needed to test acceleration and recovery effects over longer periods and whether this leads to positive or negative developmental outcomes such as mental health and wellbeing.

### **Within-person biological mechanisms of mood variability in childhood and adolescence**

*Yara J. Toenders, Marleen H.M. de Moor, Renske van der Crujsen, Kayla Green, Michelle Achterberg, & Eveline A. Crone*

Mood variability, the day-to-day fluctuation in mood, differs between individuals and develops during adolescence. Since adolescence is a time when mood disorder onset peaks, mood variability during this time is of significant interest. Because adolescents show higher mood variability and average mood than children and adults, puberty might be a potential biological mechanism underlying this increase. The goal of this developmental study was to examine the neural and hormonal underpinnings of adolescent-specific within-person changes in mood variability, with a specific focus on testosterone, cortisol, pubertal status, and resting-state functional brain connectivity. Data from two longitudinal cohorts were used: the L-CID twin study (aged 7-13, N = 258) and the accelerated Leiden Self-Concept study (SC; aged 11-21, N = 138). In both studies resting-state functional magnetic resonance imaging (rs-fMRI) data was collected, as well as daily mood. Additionally, in the SC study self-reported puberty testosterone and cortisol were collected. Random Intercept Cross-Lagged Panel Models (RI-CLPM) were used to study the within-person relations between these biological measures and mood variability and average mood. Mood variability and average mood peaked in adolescence and testosterone levels and self-reported puberty also showed an increase. Connectivity between prefrontal cortex (dlPFC and vmPFC) and subcortical regions (caudate, amygdala) decreased across development. Moreover, higher testosterone predicted average negative mood at the next time point, but not vice versa. Further, stronger vmPFC-amygdala functional connectivity predicted decreases in mood

variability. Here, we show that brain connectivity during development is an important within-person biological mechanism of the development of mood in adolescents.

### **Complexity in assessing wellbeing: preliminary findings from an fMRI study**

*Kayla H. Green, Suzanne van de Groep, Renske van der Cruijssen, Esther Warnert, & Eveline A. Crone*

More developmental studies are examining wellbeing, however, there is inconsistency on how wellbeing is defined and examined among adolescents and young adults. More importantly, only few studies have attempted to include youth's perspectives in their research on adolescent wellbeing. Also, little is known about the neural processes involved in evaluating your wellbeing. In this study we examined the neural correlates of wellbeing in young adults (n=34). Participants evaluated their wellbeing across five domains: 1) having impact, purpose and meaning; 2) dealing with stress; 3) family relationships; 4) self-confidence; and 5) feeling loved, appreciated, and respected. Next, participants were asked to indicate whether they would like to see future changes in their wellbeing. We developed this fMRI-task using wellbeing sentences from a newly wellbeing questionnaire which was developed in co-creation with youth. During the control task, participants evaluated personal interests and situations, which were expected to be unrelated to wellbeing. Behavioral results revealed that participants were least positive about the domain "dealing with stress" and that they desired changes in this domain more compared to the other four domains. Whole-brain analyses revealed that when compared to a control task, brain regions involved in social cognition and self-referential processing (i.e., TPJ, dlPFC, PCC, and mPFC) are activated when evaluating one's wellbeing. Together, these findings show that wellbeing is a multidimensional construct which involves thinking about yourself in the context of others and the relations we have with people around us.



## Symposium 3 (Parallel Session 16:00-17:15): DZ4

**Symposium title:** What's Next in Intervention Research? On the Advantages and Applications of Individual Participant Data Meta-Analyses

**Chair:** Liina Björg Laas Sigurðardóttir

**Discussant:** Patty Leijten

**Symposium abstract:** Symposium overview: Increasingly, the field of intervention research moves towards the use of individual participant data meta-analyses (IPDMA). Considered to be the 'gold standard' of evidence synthesis, IPDMAs pool raw participant-level data across multiple individual studies. This symposium brings together a group of researchers harnessing the power of IPDMAs to yield a deeper understanding of for whom, and how, psychosocial interventions for children and adolescents work. The first presentation sheds light on the process of conducting an IPDMA in the context of intervention research, highlighting common pitfalls and effective strategies. The second and third presentations provide examples of studies using this approach to study parenting interventions. Specifically, the second presentation focuses on parenting interventions for children with ADHD and provides insight into pathways through behavioral and affective components of parenting that lead to change in child behavior. Additionally, it presents findings on how these pathways may vary according to parents' baseline levels of parenting. The third presentation demonstrates findings from a study examining which specific parenting behavior changes underlie effects of parenting programs for children's disruptive behavior, and whether subgroups of families with distinct mediational pathways exist. Together, these presentations showcase how IPDMAs can be used to gain novel insights into interventions for children and adolescents, and highlight directions for the field of intervention research to move forward.

### Speaker and presenters

#### **Harnessing the Power of Numbers in Individual Participant Data Meta-Analyses: Lessons Learned.**

*Maud Hensums*

Now, we can deepen our understanding of effective components and the differential susceptibility factors at play by moving away from 'aggregate level' meta-analyses toward Individual Participant Data Meta-Analyses (IPDMA) in intervention research. IPDMA studies allow for analyzing intervention effects at the individual level. Consequently, an IPDMA has greater power to test moderators and reduce potential bias compared with an aggregate data meta-analytic approach. In this presentation, I will explore the intricacies of conducting IPDMA, detailing key steps from data acquisition and harmonization to analysis and interpretation. Drawing from first-hand experiences, I will illuminate best practices, pitfalls, and lessons learned in conducting IPDMA in the intervention domain, offering insights for researchers embarking on similar endeavors.

#### **Heterogeneity in Pathways Leading to Benefits of Behavioral Parent Training for Children with ADHD: An Individual Participant Meta-analysis.**

*Constantina Psyllou, Marjolein Luman, Barbara van den Hoofdakker, Saskia Van der Oord,*

*Patty Leijten, & Annabeth Groenman*

**Introduction:** Behavioral parent training (BPT) focuses on changing parenting practices to increase adaptive behaviors in children with Attention-Deficit/Hyperactivity Disorder (ADHD). Gaining insight in the exact pathways leading to intervention effects on child behavior, and how these may vary across families may contribute to a better understanding of how BPT works. In the current study, we investigated (1) if changes in constructive parenting (e.g., praise), non-constructive parenting (e.g., physical punishment), and parent-child affection (e.g., positive regard) are related to changes in child behavior, including severity of ADHD, oppositional behavior, and functional impairment, and (2) if these relations are conditional upon parents' baseline levels of parenting. **Method:** Moderated mediation analysis using individual participant data (IPD) from 19 randomized controlled trials on children with ADHD (n= 1,720) was performed. Immediate post-intervention parent-ratings of parenting behaviors and parent-child affection were considered as mediators, and child behavior as outcomes. Baseline values of each parenting variable were used as moderators of each pathway. **Results:** Joint improvements in parenting behaviors and parent-child affection were related to improvements in all child behavior outcomes. Improvements in non-constructive parenting and parent-child affection uniquely accounted for intervention effects on children's functional impairment. A stronger link between improvements in non-constructive parenting and functional impairment was seen in families with higher baseline non-constructive parenting. **Discussion:** Our results demonstrate the benefits of considering both parenting behaviors and child behaviors jointly. Moreover, in some parents, i.e., those with higher levels of baseline non-constructive parenting, pathways of change through non-constructive parenting seem particularly important.

### **Individual Participant Data Meta-Analysis: Individual Differences in Mediators of Parenting Program Effects on Disruptive Behavior.**

*Liina Björg Laas Sigurðardóttir, G.J. Melendez-Torres, Sophia Backhaus,, Frances Gardner, Stephen Scott, European Parenting Program Research Consortium, & Patty Leijten.*

**Introduction:** Although parenting programs are the most widely used approach to reduce children's disruptive behavior, there is a notable lack of understanding of the exact changes in parenting that underlie their effects. Challenges include the frequent use of composite measures of parenting behavior, and insufficient power to detect mediation effects and individual differences in these in individual trials. **Method:** We pooled individual participant data from 14 European randomized controlled trials of social learning-based parenting programs to examine which specific parenting behaviors best explain program effects on children's disruptive behavior. Participants were 3,255 families with children aged 1 to 13 years. As putative mediators, we included parental use of praise, tangible rewards, physical discipline, harsh verbal discipline, and not following through on discipline. Additionally, we explored if subgroups of families showing different mediational pathways exist. **Results:** Changes in parenting partially mediated program effects, with all included parenting behaviors, except parental use of praise, serving as unique mediators. Less harsh verbal discipline and increased following through on discipline were the strongest mediators. We identified three subgroups with distinct responses to parenting programs. Most families benefited, mainly through increased following through on discipline; those with the least or most difficulties in terms of parent and child mental health benefited less, or not at all. **Conclusion:** Our findings offer insight into the specific parenting behavior changes key to reducing disruptive child behavior, while highlighting the need for innovative research methodologies to gain a deeper understanding of individual differences in parenting program benefits and mechanisms.

## **Abstracts: Friday 31 May**

### **Keynote (9:15-10:15). DZ1**

**Keynote title:** The impact of psychosocial stress in adolescence

**Speaker:** Matteo Giletta

**Keynote abstract:** Adolescence represents a uniquely sensitive developmental period for the impact of psychosocial stress on health. Neurobiological and psychosocial changes associated with the onset of puberty increase adolescents' sensitivity to their social context and influence how they respond to stressful events. These profound changes play a critical role in increasing adolescents' vulnerability to develop stress-related psychopathologies, such as anxiety and depressive symptoms, which dramatically raise with the transition to adolescence. Given the concerning number of adolescents reporting stress-related clinical symptoms and their (long-term) individual and societal burdens, understanding the processes through which psychosocial stress may impact adolescents' lives remains highly relevant. In this talk, I will present a series of studies examining how stress exposure in adolescence may interfere with a variety of biological (e.g., HPA-axis and immune system activity) and psychological (e.g., daily-life emotion regulation) processes. These studies adopt an interdisciplinary approach that combines theories across different research fields, and utilize diverse methodologies, including ecological momentary assessments as well as standardized laboratory paradigms. Altogether, this work aims to shed lights on the complex mechanisms through which stress exposure, and how adolescents respond to it, may pose risk to their mental health and long-term development.

## Symposium 1 (Parallel Session 10:45-12:00): DZ1

**Symposium title:** Age-differences in cognitive functioning and information processing

**Chair:** Charlotte Pas

**Symposium abstract:** This symposium presents recent findings on age differences between younger adults and older adults in cognition and information processing. Four studies using three different methodologies will be presented, linking age-differences to cognitive task performance, to information processing, and to cognitive decline. Using experimental design, qualitative methods and longitudinal analysis, the present symposium will showcase age differences in cognition and how individual differences and social interactions relate to that. First, Hering et al. examine age-related differences between younger and older adults regarding the neurophysiological relationship between extraversion and reward- and loss-based decision-making. Second, Pas et al. investigate age-related differences between younger and older adults in their ability to maintain and execute ongoing tasks while remembering future intentions (i.e., prospective memory). Third, Nolte and Löckenhoff study age-differences in the acquisition, evaluation, and utilization of different information types. Fourth, Chereches et al. examine if the effects of (in-person and remote) grandchild contact on cognitive levels and cognitive decline differ between young-old and old-old grandparents. In sum, this symposium provides novel insights into how younger versus older adults take decisions in reward- and loss-based situations, how they retrieve intentions, how they process information and if grandparenthood is linked to cognitive functioning in young-old and old-old adults.

Keywords: age-differences, cognition, information processing, grandparenthood

### Speaker and presenters

#### **Personality neuroscience in younger and older adults: Investigating the neural correlates of extraversion in decision-making**

*Alexandra Hering, Vrinda Dimri, Gabriel Olaru, Geert van Boxtel, & Yvonne Brehmer*

Personality research has a long tradition of identifying predictors of individual behavior by focusing on differences of traits, such as extraversion. For example, higher extraversion is associated with higher social activity and subjective well-being. Research on personality or cognitive aging has been conducted mainly independent from each other. The few studies that investigate links between personality traits and cognitive decline remain mainly correlative in nature, with underlying mechanisms yet to be explored. Our research aims to uncover the neural correlates of personality-cognition relations by using electroencephalography (EEG) in younger and older adults. 55 younger and 53 older adults filled in an extensive survey on different personality traits among others on extraversion and its facets. Additionally, they participated in a lab session where they performed a reward-based decision-making task while EEG was recorded. Participants had to decide between two pictures, that were associated with different amounts of points to win or to lose. Analyses focused on behavioral performance as well as event-related potentials such as the feedback-related negativity (FRN) that has been associated with extraversion. For young adults, results indicated that a facet of extraversion (i.e., assertiveness)

was associated with better decision-making performance. Activity of the FRN seemed not to be related to extraversion. Data collection on older adults recently finished and analyses are still outstanding but will be integrated in the discussion. Findings of the current study support the understanding of neural underpinnings of personality traits and how these are associated to cognition and aging.

Keywords: Personality, aging, EEG/ERP, decision making, extraversion

### **Prospective Memory and Task Switching: The Influence of Retrieval Mode in Prospective Remembering on Aging**

*Charlotte Pas, Robert West, Nicola Ballhausen, Yvonne Brehmer, Matthias Kliegel, & Alexandra Hering*

This study aimed to examine how we keep in mind and execute competing tasks, while also remembering future intentions (i.e., prospective memory, PM), and how this differs between younger and older adults. We combined a task switching paradigm and a PM task, which were performed by 25 younger (Mage=21.68, SD=1.49) and 21 older adults (Mage=67.24, SD=4.22). For the task switching, ongoing tasks were either presented with only one task (pure blocks) or two and participants had to switch between tasks (mixed blocks). Participants were asked if a digit was either below or above five or an even or odd number. In some blocks, participants performed the task-switching tasks with an additional PM task, where they needed to press a different key when a vowel was presented either in blue or yellow. Using mixed ANOVA's, analyses of the behavioral results revealed that adding a PM instruction increased the reaction time and lowered the accuracy of the ongoing switching task (besides to-be-expected task switching effects). For both the ongoing and PM cues, younger adults performed faster than older adults, but no significant effects of age were found for accuracy. Adding PM load reduced the ability to maintain task-sets active and respond accordingly, especially influencing the reaction time of older adults. Results indicated that older adults have more difficulties when multiple task sets need to be coordinated, in line with a general decline in goal-directed behavior, but their PM did not suffer more than that of younger adults.

Keywords: Prospective memory, aging, task switching, cognition

### **How, When, and Why Do Younger and Older Adults Utilize Gist Information versus Verbatim Details**

*Julia Nolte, & Corinna Löckenhoff*

Background: In hypothetical choice contexts, older adults favor receiving, processing, and searching for gist information (e.g., "very good," "poor;") over verbatim information (e.g., "\$15," "10 mins"). The opposite is true for younger adults (Nolte et al., 2022). However, it remains unclear how said preferences affect the acquisition, evaluation, and utilization of different information types in everyday choice contexts. Methods: Semi-structured interviews were conducted with n = 64 older (60–88 years, M = 70.64, SD = 7.23, 59% women) and n = 56 younger adults (18–30 years, M = 26.21, SD = 2.97, 54% women) from Nolte et al., 2022. Interviewees described when and where they obtained gist and verbatim information and how they utilized the information in everyday choice contexts. A coding scheme was developed using conventional and directed content analysis. The final scheme (87% coder agreement) spanned five themes (Gist Attributes; Gist Sources and Contexts; Verbatim Attributes; Verbatim Sources and Contexts; Combining Gist and Verbatim). Results: Age groups agreed on most of the attributes, sources,

and contexts they associated with gist versus verbatim information. Older adults were more likely to reference gist in health-related contexts and younger adults were more likely to describe verbatim information as objective and reliable. Across information types, older adults favored expert sources and younger adults favored online/review-based sources. Discussion: Age-related similarities outnumbered age-related differences. However, qualitative data affirm that preferences for gist information may (in some contexts) be stronger among older adults, whereas the perceived reliability of verbatim information is less pronounced among this age group.

*Keywords:* information processing, fuzzy- trace theory, decision making

### **Older Adults' Frequency of Remote and Face-to-Face Contact with Grandchildren and their Links to Cognitive Functioning**

*Flavia Chereches, Nicola Ballhausen, Gabriel Olaru, Erika Laukka, & Yvonne Brehmer*

Research has linked face-to-face grandchild contact with better cognition and slower cognitive decline in grandparents. However, do these positive effects also hold for remote contact? Further, are these associations also reciprocal, such that those with better cognitive health also engage more with their grandchildren? We analyzed data from the Swedish National Study on Aging and Care in Kungsholmen (SNAC-K) covering a span of 12 years and two age cohorts (young-old, 58-74 years: N = 1100; old-old, 77-100 years: N = 705). Using latent growth curve models, we examined whether frequency of face-to-face or remote grandchild contact was associated with cognitive levels and decline. We furthermore applied (random intercept) cross-lagged models to investigate if these associations were reciprocal. In all analyses, we controlled for overall social contact of the grandparents to ensure that these effects were unique to grandchild contact and not due to being more (socially) active. Results showed that face-to-face contact with grandchildren was positively linked to levels of cognition in young-old adults only, but not to cognitive decline (in any group). Results of cross-lagged models suggested that better cognition predicted more face-to-face grandchild contact at subsequent waves for young-old grandparents, and more remote contact for old-old grandparents. However, the reverse was not true, having more contact with grandchildren (face-to-face or remote) did not lead to better cognition at subsequent waves.

*Keywords:* Grandparenthood, cognition, old-old adults, young-old adults

## Symposium 2 (Parallel Session 10:45-12:00): DZ3

**Teaching event:** Escalating into Coercion: Ethics of Clinical Care during Adolescence

**Chair:** Lisanne Stone

**Team:** Anne-Fleur van der Meer, Rosalie Pronk, Manoek Albert, Jelle van Gulp, & Koos Neuvel

**Abstract:** Although counterintuitive, in the process of treatment of persistent severe psychological problems, such as anorexia nervosa, several thwarting dynamics are at play. Especially when youngsters presenting with anorectic beliefs and behaviors show a persistent developmental pathway of decreased wellbeing during treatment, in tandem with increased feelings of parental and professional powerlessness, escalation towards coercive care may take place. We visualize coercion in the Dutch care system as an escalation ladder, with less intrusive forms of coercion (i.e., threatening with clinical admission) at the bottom and highly intrusive forms at the top (i.e., forced feeding while fixated). Evidently, coercion is associated with adverse effects, particularly for youngsters facing developmentally sensitive tasks during adolescence. The aim of this session – organized by an interdisciplinary team of (developmental) psychologists, psychiatrists, writers, ethicists, and experience experts – is for participants to understand the historical background, clinical implications and ethics of coercive care for adolescents presenting with severe forms of anorexia nervosa. Using various educational formats centered around first-person experiences (interviews, autobiographical literature, art), participants are invited to reflect on how coercive care relates to their own (professional) values. Upon closing this Teaching Event dialogue among participants will be facilitated regarding the question what good care may entail.

## Symposium 3 (Parallel Session 10:45-12:00): DZ4

**Symposium title:** Latest insights in the study of mother-infant synchrony

**Chair:** Milica Nikolić

**Symposium abstract:** Mother-infant synchrony – the temporal coordination of nonverbal behaviors (gaze, affect, vocalizations, body movements), physiological arousal, and brain activity between the mother and the infant – has been conceptualized as a process that enables the dyad to communicate and build close affiliative bonds. The last two decades have seen a sharp increase (5-7 fold, Web of Science) in the study of mother-infant synchrony. This recent research has started to reveal what characteristics shape mother-infant synchrony and how this synchrony lays the foundation for child social, emotional, and cognitive learning.

In this symposium, four presentations that take into account different levels of synchrony, including behavioral, physiological, and neural levels examine how mother-infant synchrony may be interrupted as well as whether it contributes to important outcomes in child social, emotional, and cognitive development. The first presentation by Marion van den Heuvel (Tilburg University) examines whether “technoference” (i.e., maternal distraction by digital devices) interferes with mother-infant neural synchrony. The second presentation by Julia Folz (University of Amsterdam) examines whether physiological mother-infant may be interrupted by stress induction and whether (disrupted) synchrony contributes to infants’ physiological regulation in terms of brain-body coupling. The third presentation by Milica Nikolic (University of Amsterdam) examines whether behavioral and physiological mother-infant synchrony predicts infants’ emerging prosociality. Finally, Stefania Vacaru (VU University and NY University Abu Dhabi) presents the results of a meta-analysis examining the association between mother-infant synchrony and child cognitive development. Together, these presentations offer novel insights into how mother-infant interaction is shaped and shapes important child outcomes.

### Speaker and presenters

#### **The Impact of Technoference on Mother-Infant Interaction Quality and Brain-to-Brain Synchrony**

*Marion van den Heuvel, Agata Mosińska, Elise Turk, & Maryam Alimardani*

The quality of mother-infant interactions is crucial for healthy socio-emotional development in infants. Currently, the ubiquitous presence of mobile devices offers countless opportunities for distractions, inevitably impacting face-to-face interactions. This study investigated the effects of maternal distraction by digital devices, also known as “technoference”, on mother-infant brain-to-brain synchrony. We collected data from thirty three mother-infant pairs participating in a Still Face Paradigm (SFP) that incorporated maternal smartphone distraction. Infant affect was coded during each phase of the SFP. Next, the dual-EEG method was used to assess brain-to-brain synchrony, which was subsequently quantified using the Phase Locking Value (PLV) analysis. The brain analysis focused on the infant’s theta (3-5 Hz) and alpha (6-9 Hz) frequency bands, which are known for their role in social interactions. Behaviorally, we found a clear still-face effect, with increased negative affect and decreased positive affect during still face phases. Additionally, we found that smartphone interruptions disrupted synchrony in the theta frequency band but had (almost) no significant impact on the alpha band. These results align with earlier research, highlighting the theta band’s heightened sensitivity to disruptions in social interactions compared to the alpha band. Additionally, brain-to-brain synchrony returned to baseline during the reunion, suggesting that mother-infant synchrony



can be restored when the mother reengages in the interaction. Overall, our findings underscore the detrimental impact of technofence on mother-infant interactions, emphasizing the need to minimize technological distractions in daily life.

### **Moving from co-regulation to self-regulation: the relevance of mother-infant attunement in emerging infant brain-body coupling.**

*Julia Folz, Stephanie Hoehl, Trinh Nguyen, Vanessa van Ast, & Milica Nikolić*

In the first few months of life, infants highly depend on their caregivers to maintain allostasis by means of so-called “co-regulation”. This entails a dynamic interplay between the infant’s and caregiver’s states, which is thought to contribute to the development of self-regulatory abilities in the infant. Importantly, infants whose caregivers are less able to attune to their infant’s states show difficulties in emotion-related self-regulation. In the current project, we aim to further investigate biosocial processes in the development of infant self-regulation by relating mother-infant co-regulation to infant brain-body coupling in 6-36 months-old infants. More specifically, we link attunement in parasympathetic activity between mother and infant, measured via respiratory sinus arrhythmia, to coupling in infant parasympathetic activity with infant prefrontal neural activity, measured via functional near-infrared spectroscopy, during social interactions. We further examine whether inducing stress in the mother interferes with mother-infant attunement and, as a consequence, also with physiological regulation in the infant. In the talk, we will present preliminary data of this ongoing project and discuss implications for child socioemotional development.

### **The role of mother-infant synchrony in the first year of life on infants’ prosocial behaviors**

*Milica Nikolić, & Cristina Colonnese*

Infants start showing prosocial acts, such as helping adults by handing back the dropped objects, in their second year of life (Warneken & Tomasello, 2007). By 18 months of age, infants become increasingly helpful in a variety of situations (e.g., Svetlova, Nichols, & Brownell, 2010). Accumulating evidence suggests that social interactions with parents contribute to individual differences in the timing and frequency of infants’ prosocial behaviours (Dahl & Brownell; Warneken, 2016). Parent-infant affect synchrony, the temporal coordination of affect (and its expression) during face-to-face interactions, has been known to facilitate children’s socio-cognitive and emotional development in general (Feldman, 2007), and may be a potential contributor to infants’ emerging prosociality.

In this talk, we will present findings from a longitudinal study involving 103 mother-infant dyads who visited the lab at 6 and 15 months. At 6 months, we measured mother-infant affect synchrony during a face-to-face interaction by coding facial expressions and measuring their heart rate (variability). At 15 months, we measured infants’ helping, sharing and comforting in a series of tasks in which the child was prompted to (a) help the experimenter with an out-of-reach object, (b) share toys with an experimenter and (c) comfort the experimenter who “hurt a knee”. Data from both measurement waves have been collected and are currently being processed. We will present models examining whether a longer duration of mother-infant synchrony is linked to infants’ more frequent prosocial behaviors.

### **In-sync we learn! A meta-analysis of biobehavioral synchrony’s effects on children cognition**

*Stefania Vacaru, Anna Parenteau, Plamina Dimanova, Hellen Lustermsans, Nora Raschle, Camelia Hostinar, & Carolina de Weerth.*

Background. By nature, humans are social beings spending their lives interacting with others. During the first two life decades the most common social partners are caregivers, siblings, peers, and teachers, whose role in learning is often investigated. Evidence for the boosting effects of biobehavioral synchrony, i.e., inter-subject coupling of behavioral and/or neurobiological activity

over time, on cognitive performance is mounting; however, the literature is fragmented. Various methodological and analytic approaches examine links between distinct synchrony types and cognitive outcomes, lacking the crosstalk between fields. Methods. Through a meta-analytic approach, we aim to address this gap and integrate the disconnected literature, clarifying the positive effects of biobehavioral synchrony on learning outcomes in children (<18y). All methods, including inclusion and exclusion criteria, search for relevant literature, abstract and full-text screening procedures, and data extraction, have been pre-registered, and final analyses will only be conducted in line with the suggested steps.

Results. The literature search yielded 9,313 relevant articles. During the abstract screening phase, 1519 studies were moved to full-text screening. To date, 81% have been assessed for eligibility, and 428 studies will be included in the data extraction process. We will present the first findings at the conference. Discussion. The heterogeneous definitions and approaches used in the inter-subject coupling literature of biobehavioral synchrony hinder a mechanistic understanding of how synchrony promotes learning. Creating a unified framework thus holds the potential to disentangle the role of inter-subject coupling on cognitive performance during child development.

## Flash Talks (Parallel Sessions 13:00-13:45)

### F1. Topics: Parenting in Adolescence. Room DZ1

#### 1. Savannah Boele: **Why you should not ignore the individual adolescent**

Each person is a unique human being, one of a kind, shaped by many idiosyncratic experiences. One of the primary contexts in which we gain lifechanging experiences is the parent-child relationship. Indeed, many developmental theories converge on the idea that parents and children influence each other in heterogeneous ways across families (e.g., Belsky & Pluess, 2009; Bronfenbrenner, 2005). Despite these long-held theoretical beliefs and perhaps even common-held knowledge that families are not all alike, many empirical studies have mostly been dedicated to studying ‘the average family’ to identify general principles. The findings of my recent dissertation warn against such a nomothetic approach. In my dissertation, where I introduce a family-specific (idiographic) approach, I present evidence that every family might have its own unique “recipe” for how parenting and an adolescent’s functioning impact each other over time. For example, my findings suggest that it depends on the family whether parenting practices influence the adolescent’s everyday emotions and/or vice versa. To avoid that invalid inferences from ‘the average family’ to the individual family end up in the homes of real existing families, I therefore strongly encourage parenting science to prioritize the study of the individual family to start to grasp the real life complexities of parenting adolescents. In this flash talk, I will briefly highlight my key findings and their implications, and I will share my thoughts on how our field could move forward.

#### 2. Roos van Doornik: **Brief behavioral parent training for children with impairing ADHD characteristics – a pilot study**

Introduction: Behavioral parent training (BPT) is a well-established intervention for children with attention-deficit/hyperactivity disorder (ADHD), but could be improved to make it more accessible. Therefore we developed a new brief program. Here, we studied (1) the feasibility of this program and (2) pre-post changes in daily rated problem behaviors (primary outcome), children’s disruptive behaviors, ADHD/ODD characteristics, impairment and parents’ sense of competence (secondary outcomes). Method: We conducted a nonrandomized pilot study including 28 parents of children with impairing ADHD characteristics. First, for feasibility, we analyzed recruitment, drop-out, parent and therapist satisfaction, measurement response and completion rates, acceptability of measurements, and treatment fidelity. Second, for pre-post changes we analyzed within and between group differences, comparing our treatment group with an historical control group. Results: Feasibility was good. We recruited 1.5 participant per month, drop-out was 14.2%, parents and therapists were satisfied, response/completion rates ranged from 82% to 100%, measurements were acceptable for parents, and treatment fidelity was 96%. We found substantial within-group changes ( $d$ ’s=.68-.77) and medium-sized between-group changes ( $d$ ’s=.46-.48) on daily rated problem behaviors of the child. Children did not change on most of the secondary outcomes, except for disruptive behaviors and impairment. Discussion: Our newly developed brief BPT program was feasible and we observed improvements in children’s daily-rated problem behaviors, which are of similar magnitude to those observed in traditional longer programs. These promising effects encouraged us to conduct a multicenter

RCT on the effectiveness of this program. If effective, brief BPT will be highly beneficial for clinical practice.

3. Céline Henneveld, Savannah Boele, Amaranta de Haan, Jana Vietze, & Loes Keijsers: **When Do Parents and Adolescents Perceive Parental Support as Too Much?**

Parental support is widely acknowledged as a protective factor against emotional problems among adolescents, fostering well-being through affection, comfort, and companionship. However, scholars suggest that (too much) support may backfire, limiting opportunities for the development of individual strengths over time, potentially leading to lower well-being and the onset of anxiety and depression. Empirically, much remains unknown about when, in which context, and which aspects of parental support are healthy and normative behavior versus an expression of age-inappropriate overparenting. Therefore, our preregistered inductive qualitative study investigates adolescents' and their parent(s)' conceptualization of parental support. We will conduct semi-structured interviews with 20 Dutch adolescents aged 12 to 18 years (50% girls/boys) from various secondary educational levels, cultural backgrounds, and household compositions, along with 20 independent interviews with their parent(s). At present, we have interviewed 9 of the 20 intended duos. Interview transcripts are analyzed using a semi-inductive thematic analysis approach, to detect emerging patterns and themes on perceptions of parental support. During this flash talk, I will provide a preliminary overview of the qualitative insights into the perceptions and experiences of adolescents and parent(s) regarding parental support, as well as when and why supportive practices of parents may be seen as overly supportive parenting (overparenting).

*Keywords:* Parental support; Adolescents; Parents; Overparenting; Interviews

4. Rick van Logchem, Crystal Smit, Niko Vegt, Maartje Luijk, & Loes Keijsers: **Parenting Interventions for Adolescent Mental Health: A Participatory Study Among Parents and Adolescents**

In line with the widely accepted insight that parents may promote adolescents' well-being by providing warmth and guidance, parenting interventions have been proposed by researchers and policymakers as a promising target for reducing adolescent mental health problems. Yet, adolescents' and parents' own perspectives on the desirability and content of preventive parenting interventions have not been thoroughly investigated. This preregistered qualitative study therefore explores adolescents' and parents' perspectives on (1) key causes of adolescent mental health problems and (2) how parenting relates to these causes, (3) target parenting behaviors for intervention, (4) facilitators and barriers to addressing target parenting behaviors and (5) potential modes and strategies of delivery. Participatory research sessions, consisting of interactive methods such as brainstorms to stimulate idea generation, are conducted with a minimum of 6 groups of 4-6 Dutch adolescents (N = 24-36, aged 12-18) and 3 groups of parents (N = 12-18), with various cultural backgrounds and levels of education and from both rural and urban environments. Semi-inductive thematic analyses will be conducted by two coders in Atlas.ti on transcripts of the sessions, as well as visual materials constructed by the participants during the sessions, such as posters. Initial results are presented on emergent themes within adolescents' and parents' perspectives on the primary causes of adolescent mental health problems, and how parenting might be employed to reduce or prevent their occurrence. These

insights could inform the future development of preventive parenting interventions as an avenue for reducing adolescent mental health problems.

*Keywords:* Adolescence, Mental Health, Parenting, Intervention

#### 5. Jana Runze, Susanne Schulz, & Geertjan Overbeek: **The role of parenting and DNA methylation in pubertal development and timing of sexual reproduction**

According to life-history theory, any organism will strategically divide resources toward growth, maintenance and reproduction (Ellis, 2004). In a harsh environment, humans might mature earlier to enable earlier reproduction – to secure the transmission of one’s own genes in the next generations (Belsky et al., 1991). Recently, a two-hit model of accelerated aging has been proposed (Belsky & Shalev, 2016), specifying that early adversity does not necessarily lead to earlier sexual reproduction even though it has been found to predict pubertal maturation. Belsky and Shalev (2016) hypothesized a potential biological mechanism, wherein early childhood adversity may result in epigenetic changes (i.e. advanced biological age compared to chronological age measured via epigenetic clocks) which might result in earlier pubertal maturation and, in case of a non-supportive environment, in earlier sexual reproduction. In our pre-registered study, we used data of the ongoing, population-based Avon Longitudinal Study of Parents and Children (ALSPAC) with almost 15,000 included pregnant women and prospective data on these mothers and their children for around 30 years. We examine whether early life adversity and negative parenting behaviors predict earlier pubertal development and whether positive parenting, such as maternal sensitivity, predicts later pubertal development. We also test whether this relation is mediated by DNA methylation to understand the biological mechanism underlying the relation between early life adversity and pubertal development. Lastly, we examine the two-hit model of accelerated aging, namely whether early pubertal development predicted earlier (and more) sexual reproduction. Results and implications of our findings will be discussed.

### **F2 Topics: Prosocial and Antisocial Behaviour. Room DZ3**

#### 1. Nil Horoz, Nienke van Atteveldt, Joost Oude Groeniger, Tanja Houweling, Frank van Lenthe, TuongVan Vu, Hans Koot, & Marieke Buil: **Academic Self-Concept Development in Elementary School: the Role of Household- and School-level Parental Education**

Parental education is an important determinant of children’s educational development. This longitudinal study examined the main effect associations and cross-level interactions of household- and school-level parental education on academic self-concept (ASC) development from fourth to sixth grade of elementary school. In addition, we investigated the mediating roles of child- and school-level academic achievement (AA) in these associations. Children (N = 679, ages 10-12) from 18 elementary schools were followed annually. ASC levels were relatively high and stable from fourth to sixth grade. Overall, results from multi-level latent growth models showed that household-level parental education was indirectly associated with child-level ASC through child-level AA. That is, children of higher-educated parents showed higher AA and in turn reported more positive ASC development compared to children of lower-educated parents. Furthermore, although school-level AA was not associated with school-level ASC and hence not a mediator, higher ASC and lower AA scores were found in lower parental education schools than in higher parental education schools. Cross-level interactions showed that children of lower-

educated parents generally benefited more from attending lower parental education schools than attending higher parental education schools regarding their ASC. Findings indicate a need for interventions to nurture ASC of children of lower-educated households and children attending higher parental education schools.

*Keywords:* parental education, school SES, academic self-concept, elementary school, academic achievement

## 2. Esther Karkdijk: **Like my parents taught me to? Examining the association between democratic parenting and adolescents' citizenship self-efficacy and institutional trust**

In many ways, parents contribute to the socialization of their children into society. Parents explicitly and implicitly transmit values, and the family may be thought of as a proxy for relations in society. Democratic parenting, including autonomy-support and warmth, may provide children opportunities to experience democratic principles such as joint decision-making, thereby stimulating self-confidence to participate in society and trust in democratic decision-making (Miklikowska & Hurme, 2011).

This study explores associations between patterns of perceived parental autonomy-support and responsiveness, and adolescents' self-confidence in active citizenship behavior (citizenship self-efficacy) and trust in civic institutions. Questionnaire data from the International Civic and Citizenship Education Study 2022 in the Netherlands were used, complemented by an additional questionnaire. Participants were 543 students (Mage = 14.0) in grade 8 of 32 schools. Latent Class Analysis was used to identify patterns of perceived autonomy-support and responsiveness, and to examine associations between parenting behavior and citizenship self-efficacy and institutional trust. Preliminary results reveal four patterns of perceived parenting behavior. The largest group of adolescents (65%) reports high levels of both autonomy-support and responsiveness. Other patterns were high responsiveness and low autonomy-support (10%), average autonomy-support and below average responsiveness (18%) and low levels of both autonomy-support and responsiveness (8%). The preliminary results suggest that parenting behavior is correlated to adolescents' institutional trust, but not to civic self-efficacy. This provides relevant insights in light of seldomly explored differences in adolescents' democratic attitudes in relation to parenting behavior. More extensive analyses will be presented at the VNOP conference.

## 3. Tessa Lansu: **Being On Top Versus Not Dangling At the Bottom: Popularity Motivation and Aggression in Youth**

Whereas research on aggression and status motivation in youth has predominantly looked at a promotion focus (striving for popularity), a prevention focus (wanting to avoid low popularity) could also be an important determinant of aggression, as youth who fear low popularity may resort to using (proactive) aggression to secure their position. The aim of the current study was to develop reliable measures to measure both popularity motivations, and examine how both motivations uniquely and jointly predict aggression.

Participants were 1177 Dutch secondary school students (M age = 14.4 years, 48% girls), who completed a 3-item measure of striving for high popularity based on existing questionnaires (Li & Wright, 2014; Ojanen et al., 2005), and a 3-item measure of avoiding low popularity consisting of an adapted version of the high popularity items. Aggressive behavior was measured through peer nominations. Both motivations were moderately correlated ( $r = .51$ ), but did not always co-occur

within the same person, as 17% of the sample belonged to a cluster that scored low on striving for popularity, but moderately high on avoiding low popularity. Striving for high popularity was not predictive of aggression, whereas avoiding affiliation with unpopular peers was predictive of many types of aggression when considered simultaneously. For physical aggression, gossiping, excluding others and bullying, the effect of avoiding low popularity was magnified by striving for high popularity. These results suggest that future work should take both popularity motivations into account in order to better understand and intervene on youth's aggression toward peers.

#### 4. Danni Liu, Anouk van Dijk, Zonglin Tian, Maja Deković, & Judith Semon Dubas: **Differential Susceptibility to Peer Rejection and Acceptance: A Within-Child Experiment**

Differential susceptibility theory suggests that some children are more strongly affected by both peer acceptance and rejection experiences. Despite evidence from previous studies, two gaps remain. Most studies 1) used between-person designs, insufficient to test if the same children who are more susceptible to peer rejection are also more susceptible to peer acceptance (i.e., within-child differential susceptibility), and 2) tested person-by-environment interactions for peer rejection and acceptance separately, unable to rule out the possibility that different subsets of highly susceptible children are responsible for the observed heightened susceptibility to rejection versus acceptance. To address these gaps, we combined a within-child design with person-based analyses, examining: 1) whether a subgroup of children exists who are more reactive to both peer rejection and acceptance, and 2) whether higher levels of sensory processing sensitivity (SPS) characterize this subgroup. We randomly assigned 455 children (Mage = 10.86, 49.5% boys; 99.5% Han Chinese) to receive either counterbalanced rejection and acceptance feedback (experimental group) or neutral feedback (control group) from online fictitious peers, assessing their emotional, self-esteem, attributional, and behavioral reactions. Person-based analyses revealed two subgroups of children exhibiting heightened reactivity to both rejection and acceptance, compared to a third, low-reactivity subgroup, thereby supporting within-child differential susceptibility to peer feedback. Unexpectedly, only one of the more reactive subgroups exhibited higher SPS levels, thus providing limited support for SPS as a marker of differential susceptibility.

#### 5. Jenna Spitzer: **Promoting Adolescents' Sustainable Behavior via Motive-Alignment: A Field-Experiment**

Adolescents are well-positioned to catalyze sustainable behavior change in society. And yet, for most adolescents, their day-to-day behaviors tend not to reflect their climate change concern. In this longitudinal field experiment, we aimed to promote adolescents' sustainable behavior using a "motive-alignment" approach. This approach posits that adolescents can be motivated to engage in sustainable behavior by aligning such behavior with their developmentally salient motives for autonomy and peer status. Dutch adolescents (N = 474) were randomly assigned to work on educational materials (i.e., reading and writing activities about climate change) that were either motive-aligned (intervention) or not (active control). We found evidence for the hypothesis that the motive-alignment intervention, compared to the active control, would increase adolescents' sustainable behavior on the day of the intervention at a food-stand (PMPc = 87.5%, Bayes Factor = 7.03), where they could choose among snack options with more or less favorable eco-labels. This research informs the development of affordable and scalable interventions to help adolescents act on their environmental concerns in their daily lives.

## Symposium 1 (Parallel Session 14:00-15:15): DZ1

**Symposium title:** Predictors of Deviant Behavior and the Role of Personality: Measurement and Technology

**Chair:** Iris Frowijn

**Symposium abstract:** Deviant behavior is often predicted by adverse childhood experiences and can manifest itself in the development of maladaptive personality traits, aggression, relational conflicts, and sexual offenses later in life. In this symposium we will delve into a range of deviant behaviors and their correlates, where the perspectives from different assessment techniques are provided. The first presentation focusses on the assessment of psychopathic traits from a developmental and personality perspective using a new short-form self-report measure. In the second presentation, the interrelations between individual characteristics (e.g., childhood trauma and personality) and intimate partner violence and stalking involvement are presented. The third presentation continues this in a sample of forensic patients by investigating the associations between childhood adversities and aggression, including physiological measures such as heart rate variability. Finally, the fourth presentation reveals a novel technological tool to intervene and prevent aggression, specifically applied to individuals at risk of engaging in child sexual abuse material offenses.

### Speaker and presenters

#### **Assessing Psychopathic Traits from a Developmental and Personality Perspective: A Validation of the Elemental Psychopathy Assessment Short Form**

*Elieen De Caluwé, Mieke Decuyper, Kasia Uzieblo, Sam Ysewyn, Filip De Fruyt, & Stefan Bogaerts*

**Background.** The Elemental Psychopathy Assessment (EPA) is a self-report measure for psychopathy in adults. Given the need for a short form, the EPA-SF was developed. The present study aims to validate the Flemish version of this EPA-SF in adolescents and adults, investigating its reliability, structure, construct and criterion validity. **Method.** A community sample of 440 Flemish adolescents (58% female; 14-18 years old) and 301 adults (84.40 % female; 19-57 years old) participated. Online self-reports on the EPA-SF, the Externalizing Spectrum Inventory-Brief Form, and the Reactive-Proactive Aggression Questionnaire were provided. Adolescents also completed the Youth Psychopathic Traits Inventory and the Children's Social Behavior Scale. **Results.** The original 4-factor structure of the EPA-SF, including Antagonism, Emotional Stability, Narcissism and Disinhibition was replicated using SEM. Measurement invariance analyses with multi-group ESEM provided support for full (i.e., strict factorial) measurement invariance across gender and age. This suggests equivalence of the factor structure, factor loadings, intercept, and unique variance across males and females, as well as across adolescents and adults. In the adolescents, medium to large correlations were found between the EPA-SF and YPI factors. Correlational patterns underscore the convergent validity of both psychopathy instruments in adolescence. EPA-SF factors were strongly correlated with different forms of aggression and the externalizing spectrum, supporting criterion validity. Also reliability was supported. **Discussion.** The Flemish version of the EPA-SF can be considered a promising questionnaire for assessing



psychopathic traits in both adolescents and adults. Early assessment is crucial for prevention and timely treatment, considering the malleability of youngsters' personalities.

### **Interrelations between individual characteristics and negative experiences within and/or after romantic relationships: A network analysis**

*Iris Frowijn, Elien De Caluwé, & Stefan Bogaerts*

Background: Aggression in relational contexts, such as intimate partner violence (IPV) or stalking, is a worldwide problem with severe consequences for all involved parties, including bystanders and society at large. Previous research has identified risk factors for both victims and perpetrators, yet the interconnections among these risk factors remain largely unexplored. Therefore, we aimed to investigate how individual characteristics (i.e., childhood trauma, adult attachment style, maladaptive personality traits, and moral disengagement) and negative experiences during and/or after romantic relationships (i.e., IPV and stalking behaviors) are interrelated for both victims and perpetrators. Method: A sample of 648 participants from the general population completed online self-report questionnaires (71% female, Mage = 34.93 years old, SDage = 16.40). A partial correlation network was estimated at the scale-level to investigate the interrelations. Networks were also estimated and compared for men and women. Preliminary results: While IPV victimization and perpetration were strongly interrelated, there was no significant relation to other nodes in the network. Contrarily, stalking victimization was part of the network and positively connected to abusive childhood trauma and gender. The most central nodes in the network were Callous-Unemotional personality traits and gender. Discussion: Against expectations, it appears that individual characteristics may not exert as much influence on IPV involvement as previously assumed. It is possible that contextual factors are more predictive in relational aggression.

### **The Complex Associations Between Early Childhood Adversity, Heart Rate Variability, Cluster B Personality Disorders, and Aggression**

*Marija Janković, Stefan Bogaerts, Stéphanie Klein Tuente, Carlo Garofalo, Wim Veling, & Geert van Boxtel*

Early childhood adversity can cause an imbalance in the autonomic function, which may in turn lead to the development of trauma-spectrum disorders and aggressive behavior later in life. In the present study, we investigated the complex associations between early adversity, heart rate variability (HRV), cluster B personality disorders, and self-reported aggressive behavior in a group of 50 male forensic inpatients (Mage= 41.16; SDage =10.72). Structural Equation Modeling analysis revealed that patients with cluster B personality disorders were more likely to have adverse early childhood experiences and reduced sympathetic dominance in response to a threat than patients without cluster B personality disorders. In addition, HRV and cluster B personality disorders did not significantly mediate the association between early childhood adversity and self-reported aggressive behavior. These findings are important for clinical practice to facilitate specific treatment programs for those affected.

### **From Deviant to Desired Behavior: The Use of Technology**

*Manon Kleijn, Elien De Caluwé, & Stefan Bogaerts*

The widespread availability of child sexual abuse material (CSAM), coupled with the growing use of end-to-end encryption to conceal such activities, presents a significant challenge for law enforcement agencies. Moreover, individuals struggling with CSAM use often report difficulties in controlling their behavior, underscoring the need for early interventions strategies aimed at prevention. However, there is lack of evidence-based interventions targeting individuals at risk of engaging in CSAM offenses. In response to this gap, the current project aims to develop, implement, and evaluate an innovative, user-centered technological prevention tool designed to support individuals in effectively managing their CSAM-related behavior. The tool aims to support individuals at risk of committing first or subsequent CSAM offenses by promoting self-management strategies. Currently, the tool is in the development phase, with the pilot phase recently started. This presentation provides an overview of the project and shares some preliminary results.

## Symposium 2 (Parallel Sessions 14:00-15:15): DZ3

**Symposium title:** Adaptation and Regulatory Processes Across the Adult Life Span

**Chair:** Emmie Verspeek

**Symposium abstract:** Across the adult lifespan, individuals face major- and minor challenges that require significant adaptations. These adaptations are facilitated by regulatory processes to manage emotions, affect, and stress. Aging is oftentimes connotated with decline. Yet, research illustrates older adults' capacities to adapt: regulatory processes remain rather stable, or even improve across the adult life span. This symposium offers a multimethod perspective on adaptation and regulatory processes in daily life as well as in response to major- and minor life events. Evidence will be presented from cross-sectional, experimental-, and (micro-)longitudinal research, highlighting differences between age groups and individual differences among older adults in these processes across a variety of contexts (i.e., nursing homes, the work-place, and the community). First, Verspeek and colleagues will provide insights into changes in cognitive abilities and well-being across the first six months after relocation to a nursing home. Second, Ballhausen and Haas will shed light on how stress affects different types of naturalistic prospective memory tasks and if stress differently affects memory tasks in younger and older adults. Third, El Khawli and colleagues will reveal how age and work place context impact emotion regulation in daily life. Finally, Klaiber and Pauly will examine the daily dynamics between subjective age, positive and negative affect in relation to positive events and stressors. Together, these studies provide valuable insights into adaptation across the adult life span, further exemplifying the roles of psychosocial resources, emotion regulation strategies, and stress reactivity.

### Speaker and presenters

#### **Changes in Cognitive Functioning and Well-being in Old Age: A Longitudinal Study of Nursing Home Residents**

*Emmie Verspeek, Maximilian Haas, Yvonne Brehmer, Manon van Scheppingen, Matthias Kliegel, & Alexandra Hering*

Relocation to a nursing home is a major life event in old age for which both positive and negative consequences have been documented. Yet, little is known about short-term changes or adaptational processes in nursing home residents after relocation took place. Using data collected at nine nursing homes in Geneva, Switzerland, we studied changes in cognitive functioning and well-being (i.e., functional abilities, loneliness, depression, purpose in life, and resilience) in cognitively healthy nursing home residents. A total of 48 nursing home residents, aged 59 to 99 years ( $M = 85.67$ ,  $SD = 9.36$ ), with 37 females and 11 males, were included in the study. Participants completed questionnaires during the first week of nursing home entry, as well as at three and six months thereafter. Using Repeated Measures ANOVAs, we found that cognitive functioning declined in the first three months, and improved back to baseline level from three months up to six months after nursing home entry. Loneliness increased in the first three

months, and decreased back to baseline level thereafter. Other factors did not show significant changes over time. Our study suggests that older adults are able to adapt to life in a nursing home within the first six months after relocation. Future research should examine individual differences in change and potential underpinnings thereof, to further unveil the processes of adaptation after relocation to a nursing home.

### **Effects of Stress on Different Naturalistic Prospective Memory Tasks in Younger and Older Adults**

*Nicola Ballhausen, & Maximilian Haas*

In prospective memory (i.e., remembering to execute an intended action in the future), a paradoxical finding has motivated research for the last two decades: while younger adults outperform older adults in the laboratory, the opposite is the case in real life, where older adults outperform younger adults in naturalistic prospective memory tasks. One explanation of the findings in everyday life that has been put forward is that levels of stress differ between younger and older adults, and consequently prospective memory is differently affected by stress in the two age groups. Still, not many studies have systematically investigated this suggestion. Moreover, stress was usually assessed in a global way, but not more specifically linked to the different prospective memory target moments. The present study set out to systematically compare how stress affects different types of naturalistic PM tasks (i.e., experimenter-given tasks executed in daily activities, experimenter-given tasks embedded in the study materials, assessment of participants own diaries and subsequent check of completion, and free reporting of memory failures). The study further investigated whether stress differently affected the prospective memory tasks in younger and older adults. Importantly, instead of using global and averaged measures of stress, stress was investigated using ambulatory assessment, which lead to a more fine-grained and time-contingent assessment of stress that could be linked to PM performance. Results on age differences in stress and stress effects on naturalistic prospective memory are linked to laboratory stress effects on prospective memory and discussed in the context of the age-prospective memory paradox.

### **The Older Workers are Alright: A Lifespan Perspective on Emotion Regulation Repertoires in the Workplace**

*Elissa El Khawli, Anita Keller, & Susanne Scheibe*

Lifespan psychological theories posit that aging is associated with improvements in emotion regulation. In the organizational psychology literature, there is mixed empirical support for this position. In the present work, we argue that to understand aging and emotion regulation processes in the work context, it is essential to examine repertoires of emotion regulation strategies as opposed to considering strategies in isolation. Furthermore, we argue that it is important to examine the role of the work context as the type of work stressors to which employees are exposed may influence how they regulate their emotions, and may interact with age differences in emotion regulation. Using two samples of 1009 and 980 employees, respectively, we identified five work-related emotion regulation latent profiles. Then, we examined how these profiles related to occupational well-being, age, and the occupational context (i.e., work characteristics). We found that older workers were more likely to be in emotion regulation profiles that are positively associated with well-being. Although stressful occupational contexts were related to emotion regulation profiles that are negatively associated with well-

being, older workers were more likely to be in favorable emotion regulation profiles regardless of the occupational context. All in all, our findings support the notion of an older-age advantage in emotion regulation at work and advance our understanding of contextual and lifespan effects of emotion regulation processes at work.

### **Daily Fluctuations in Subjective Age as a Predictor of Exposure and Reactivity to Daily Stressors and Positive Events**

*Patrick Klaiber, & Theresa Pauly*

Subjective Age, also known as felt age, refers to individuals' perception of their age compared to their chronological age. Daily fluctuations in subjective age are linked to daily affective experiences; feeling older than usual has been associated with experiencing more same-day stressors and higher negative affect. Feeling older than usual may indicate depleted psychosocial resources, increasing the likelihood of interpreting everyday situations as stressful and reacting more intensely to them. Conversely, feeling younger than usual may indicate greater psychosocial resources, leading to increased engagement in and responsiveness to positive events. Thus, this study investigated fluctuations in subjective age as a predictor of same-day event engagement (stressors and positive events) and affective responses to these events using 14-day diary data from a sample of 108 older Swiss adults (aged 65-92). On average, participants felt approximately 8 years younger than their chronological age, with significant day-to-day variability (ICC = .69). We found that on days when individuals felt older than usual, they reported more stressors and fewer positive events. Older subjective age was also associated with lower same-day positive affect, but also greater increases in positive affect when positive events occurred. Similarly, older subjective age was related to greater same-day negative affect, yet also to more pronounced decreases in negative affect when positive events occurred. However, stress reactivity, as indicated by stressor-related affect, was not associated with subjective age. These findings underscore the importance of subjective age as a dynamic psychological construct potentially shaping individuals' daily affective experiences.

## Symposium 3 (Parallel Session 14:00-15:15): DZ4

**Symposium title:** Innovations in emotion research using the Experience Sampling Method

**Chair:** Eeske van Roekel

**Discussant:** Dominique Maciejewski

**Symposium abstract:** The Experience Sampling Method (ESM), a structured technique for collecting intensive longitudinal data through smartphone-questionnaires in real life, is increasingly used in developmental research. In this mixed-methods symposium, we will highlight new innovations in emotion research by combining ESM with qualitative research (presentation Schorrlepp), with controlled lab experiments (presentation Schipper) and with just-in-time adaptive interventions (JITAI, presentation van Roekel).

In the first presentation, Schorrlepp will present results from a mixed-methods study to examine response processes in emotion assessment during ESM. By combining interviews, qualitative items, and ESM data, this study aims to get more insight into how participants decide and report how they feel. The second study (Schipper) examines how responses to a controlled lab experiment on reward learning relate to real-life reward dynamics measured through ESM, in a sample of young adults. Third, van Roekel uses ESM data on positive emotions to determine the optimal timing and content of interventions to improve positive emotions (i.e., JITAI) in young adults. Finally, the discussant Dominique Maciejewski, an expert in emotion dynamics in daily life, will integrate the findings from the three presentations and highlight future directions in emotion research with ESM.

### Speaker and presenters

#### How do people decide how they feel? Response processes in Experience Sampling Method studies

*Leonie Schorrlepp, & Dominique Maciejewski*

Emotions play a central role in our functioning. A prominent way to assess emotions is the Experience Sampling Method (ESM). Due to technological advances of the past decades, ESM research is booming and is now commonly used to study dynamics in emotions, enhancing our ability to track short-term developmental processes. To justify the use of ESM to study emotions in research and clinical practice, valid measurements are crucial. However, recently concerns have been voiced regarding the validity of emotion assessments using ESM. In particular, research suggests that participants apply different response processes to decide on their answers, making intra-individual and inter-individual comparison difficult. That is, for the question 'how sad are you right now' on a scale from 1 (not at all) to 7 (very much), a '4' may often carry different meaning for different participants. We will share initial results of a mixed-methods investigation into response processes during emotion assessment, combining ESM and qualitative interviewing techniques. During the study, a sample of 38 young adults rated emotions five times per day across 28 days of ESM using standard Likert scales. We also asked participants to reflect on their rating choices in the moment using an open-ended approach (via text or voice recordings). Additionally, we conducted three semi-structured and cognitive interviews during

the 28-day period to get more detailed insights into participants' response processes. We will present first results on the feasibility of assessing response processes in real-time as well as initial results regarding their inter-individual and intra-individual variability.

### **From Lab to Life: Unraveling the Interplay Between Reward Learning and Reward Dynamics in Daily Life**

*Annelies Schipper, Charlotte Vrijen, & Eeske van Roekel*

Exploring the role of rewarding experiences (or the absence thereof) is important for gaining insights into the underlying mechanisms of psychopathology. While reward learning, the ability to adapt behavior in response to reward, is associated with other reward processes (e.g. anticipatory and consummatory reward), it remains unclear how these associations unfold in daily life. Furthermore, reward learning is typically measured in controlled lab environments, whereas the generalizability of laboratory studies to the 'real world' remains questionable. The Experience Sampling Method (ESM) can provide insights into real-life reward processing. The current study aims to bridge the gap between the controlled laboratory environment and real world experiences by investigating whether reward learning in the lab predicts anticipatory and consummatory reward and the extent to which individuals seek out rewarding activities in daily life. Participants were undergraduate students at Tilburg University (ongoing data collection, N = 54 students already included) who completed the Probabilistic Reward Task (PRT) as a measure of reward learning, followed by a 14-day ESM period (five measurements/day). In the ESM-questionnaires, participants rated items measuring anticipatory reward (in-the-moment pleasure associated with and prediction of future reward), consummatory reward (experienced reward during and positive affect following anticipated reward) and hedonic motives for seeking out rewarding activities. Dynamic structural equation modeling (DSEM) will be used to explore whether reward learning predicts anticipatory and consummatory reward as well as the extent to which individuals seek out rewarding activities. First results will be presented during the VNOP conference.

### **It's about time! Results from a just-in-time adaptive intervention to improve positive emotions**

*Eeske van Roekel, & Dominique Maciejewski*

Improving positive emotion regulation is essential in preventing mental health problems and increasing well-being. An effective way to improve positive emotions (PE) is through positive psychology interventions. While previous Experience Sampling Method (ESM) studies demonstrated that providing one-time personalized ESM-based feedback increases PE, there is large heterogeneity in effectiveness. An important next step is to further personalize interventions through "just-in-time adaptive interventions" (JITAI), by identifying the optimal timing and content of the intervention. The present study examines the feasibility of providing micro-interventions during low versus high positive emotion moments in a sample of young adults (N = 139). Participants enrolled in a 15-day baseline period, after which they were randomly assigned to the intervention group (N = 70) who continues with the ESM for another 15 days and receives the JITAI, or an active control group (N = 69) who only continues with the ESM. Subsequently, all participants continued with another 15 days of ESM. The initial cohort (N = 52) showed high compliance with the ESM (75%), and with the interventions (90-95%). Compared to the control group, the intervention group reported to be better able to cope with negative emotions, and to

feel better about themselves due to the study. Changes in outcome variables will be presented during the conference, as data from the ongoing second cohort are currently collected. This research underscores the potential of personalized, timely micro-interventions in amplifying positive emotions and well-being, offering valuable insights for mental health interventions.

### **Keynote (15:45-16:45). DZ1**

**Keynote title:** Tipping Points in Treatment Trajectories

**Speaker:** Anna Lichtwarck-Aschoff

**Keynote abstract:** There is growing recognition of psychopathology as an intricate phenomenon characterized by significant diversity within diagnostic classifications, comorbidities, and temporal fluctuations. Evidence is amassing, indicating that psychopathology reflects individualized experiences, stemming from a complex interplay among interdependent biological, psychological, and sociocultural factors. Complex adaptive systems is an interdisciplinary framework adept at encompassing the dynamic, multi-causal, and idiosyncratic nature of psychopathology, providing insights and tools to conceptualize and manage pattern formation and (therapeutic) change. A significant part of my research in the past years centers around the hypothesis that the general goal of treatment is to break the rigid state associated with psychopathology and shake loose old patterns, to trigger a qualitative shift towards more healthy and flexible patterns of functioning. In this talk I will present studies in various target groups and treatment contexts, employing different designs and methods. A general approach that we take is to collect data on (many) contextualized individual change processes. This method allows the bottom-up accumulation of broader, universally applicable insights into mechanisms of change, which can then be extrapolated across diverse contexts, temporal stages, and diverse populations. Ultimately our goal is to inform daily practice about how to dynamically personalize interventions (i.e., better target and timely adapt intervention efforts to the particulars of individual clients).



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## Directions and Campus Map

### Car

To go to the main parking lot, set your navigation to Warandelaan 2, 5037 AB Tilburg. You will arrive at the **main parking** lot close to e.g. building G (Goossens). **Parking on all parking lots around the campus is free.** For details, check the [university's website](#).

Below you can find walking directions from the main (free) parking lot to the Dante building where the conference is held (circled).



*Please note that all buildings close at 7 pm (make sure to have all your belongings with you). All parking lots are accessible at all times.*

### Train

#### Local train/sprinter

Coming from Eindhoven, Breda or 's-Hertogenbosch with the local train (sprinter/stoptrein), can disembark at station Tilburg Universiteit. The university is walking distance from the station. Trains from 's-Hertogenbosch will arrive at platform 1, trains from Eindhoven arrive at platform 3, trains from Breda arrive at platform 2.

#### Intercity

Coming with the intercity, travelers can disembark at Tilburg Central Station, and take the sprinter to Station Tilburg University as mentioned above or take the bus as mentioned below.

## Bus

From Tilburg Centraal station take either line 4 (richting reeshof) or 131 (richting Breda). Disembark at stop “Universiteit van Tilburg”. Walking directions from station Tilburg Universiteit to the Dante building are depicted below.

