

VERENIGING VOOR NEDERLANDSE ONTWIKKELINGSPSYCHOLOGIE

CONFERENCE 2026 – FULL PROGRAM

Thursday June 11 & Friday June 12 | Meet Tuesday, Rotterdam

On behalf of the VNOP board, we welcome you to the 2026 VNOP (Dutch Society for Developmental Psychology) conference organized by the Department of Psychology, Education, and Child Studies, Erasmus University Rotterdam on June 11-12, 2026. We are looking forward to seeing you at [Meet Tuesday](#) (Weena 690, 23rd floor) in Rotterdam.

In recent years, science increasingly responds to societal questions to make meaningful impact. How can developmental research evolve to reflect the lives and needs of today's youth as much as possible? In 2026, we invite the field of developmental science to explore how the voice of youth and societal questions can be integrated in both fundamental and applied research; ranging from the study of mechanisms in the lab to observing changing patterns in daily life.

In this conference, we take inspiration from development itself: unfolding in phases, shaped by context, and driven by connection. Developmental research also evolves through many phases, from curiosity to design to dissemination, and back. At each step, there are opportunities for both scientific rigor and societal relevance. This conference brings together researchers to explore how we can advance knowledge that is both scientifically rigorous and societally relevant. Together, we'll explore how developmental science can respond to societal questions without losing its scientific foundation.

We look forward to meeting you in Rotterdam!

The organizing committee,

Anita Harrewijn (chair)

Annabel Vreeker

Crystal Smit

Eva Borkhuis

Eveline Crone

Kayla Green

Lina van Drunen

Miranda Lutz-Landesbergen

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EUR Sector Plan Resilience in Youth

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Program at a glance

Thursday June 11		Friday June 12	
9:15 – 10:00	Registration + coffee	9:00 - 9:30	Registration + coffee
10:00 – 10:15	Conference opening	9:30 – 11:00	Parallel sessions (Symposia)
10:15 – 11:45	Parallel sessions (Symposia)	11:00 – 11:30	Coffee break
11:45 – 12:45	Lunch + Posters	11:30 – 12:15	Keynote: Esther Rozendaal
12:45 – 14:15	Parallel sessions (Symposia + Flashtalks)	12:15 – 13:15	Lunch + Posters
14:15 – 15:00	Keynote: Rogier Kievit	12:45 – 13:15	<i>General assembly*</i>
15:00 – 15:45	Keynote: Amy Orben	13:15 – 14:15	Workshops
15:45 – 16:00	Coffee break	14:15 – 15:45	Parallel sessions (Symposia + Flashtalks)
16:00 – 17:30	Parallel sessions (Symposia + Flashtalks)	15:45 – 16:00	Dissertation award talk
17:45 – 18:15	Social Program: Street Art Tour	16:00 – 16:15	Poster/flashtalk award ceremony and closing
18:30	Dinner	16:15	Drinks + bites

**the general assembly will overlap partially with lunch + posters*



Keynote Speaker 1: Rogier Kievit
Donders Institute, Radboud University Medical Centre

Thursday June 11, 14:15 – 15:00

Cognitive Microscopy: Understanding learning and development through ecologically valid measurements and timeseries analysis

Cognitive ability develops across the lifespan, improving during childhood and declining in old age. However, this seemingly smooth developmental curve obscures the insights that can be gained by zooming in on how our cognitive performance varies across seconds, sessions, days and even seasons. In this talk I will demonstrate the importance of cognitive variability to understand cognitive development. I will show how we can leverage modern tools (smartphones, sensors and statistics) to measure and model the internal (e.g. mood, fatigue, strategy) and external (e.g. noise, temperature) impacts on how we learn and develop in the short and longer term. I will discuss both the positive (flexibility, exploration, resource allocation) and negative (inattentiveness, fatigue, distraction) sides of fluctuations, and how we may optimize learning environments such as classrooms to do better for developing children.

About Rogier Kievit: Rogier Kievit is Professor of Developmental Neuroscience at the Donders Institute of Brain, Cognition and Behaviour at the Radboud University Medical Centre. He leads the Lifespan Cognitive Dynamics Lab, developing and applying statistical models in large longitudinal samples to investigate how cognitive abilities are interrelated, how change in the structure of the brain contributes to changes in cognitive abilities, and how cognitive functioning is associated with such factors as physical and mental health, social and intellectual engagement, and environmental factors. He is a member of De Jonge Akademie, and (co)chair of the Green Young Academy and the Radboud Ecological Momentary Assessment Centre (REMAC).



Keynote speaker 2: Amy Orben
University of Cambridge

Thursday June 11, 15:00 – 15:45

Screen Savers: Protecting Adolescent Mental Health in a Digital World

In our rapidly evolving digital world, there is growing concern about the impact of digital technologies, including social media, on the mental health of young people. Researchers face increasing pressure to produce evidence that can inform policy and practice, yet research progress is slow while technological change accelerates. Digital companies have created highly popular environments that differ in important ways from the offline contexts in which humans have traditionally developed and interacted. By revisiting the psychological foundations underlying these design choices, we can gain deeper insight into how digitalisation may shape outcomes such as mental health. In this talk, Professor Orben examines these issues from multiple methodological perspectives. On the one hand, developmental vulnerabilities that predispose young people to mental health difficulties may be exacerbated by digital environments. On the other hand, specific design features can interact with cognitive and learning processes, creating environments that are difficult to disengage from. Beyond questions of impact, the talk also addresses more fundamental challenges of studying rapidly evolving technologies, including what it means to do rigorous science in this domain and how researchers, practitioners and policymakers might be able to keep pace with ongoing technological change.

About Amy Orben: Professor Amy Orben is a Research Professor at the MRC Cognition and Brain Sciences Unit and Fellow of St. John's College at the University of Cambridge. She leads the UK's largest research programme investigating the links between mental health and digital technology use in childhood and adolescents. She routinely advises policymakers and public servants around the world, for example as Director of a 2025 UK Government independent research commission on this topic and as a member of the Science Advisory Council at the UK Department for Education.



Keynote speaker 3: Esther Rozendaal
Erasmus University Rotterdam

Friday June 12, 11:30 – 12:15

What Children Need to Be Resilient in the Digital World

Children are avid users of digital media. They stream movies and series on Netflix and Disney, scroll through videos on YouTube and TikTok, interact and share with others on WhatsApp and Snapchat, play games such as Roblox and Minecraft, and browse all kinds of websites in search of information. These activities offer them many opportunities in terms of entertainment, learning, social connection and identity formation, but also present challenges and risks for their wellbeing and safety. Although many children are aware of strategies to cope with online challenges and risks, they often struggle to apply those strategies in practice. In this talk, I will explain the reasons behind this gap and what can be done to bridge it. To do so, I adopt an integrated approach, combining theoretical insights from the field of media literacy, developmental psychology and behavioral sciences. In addition to this integrated theoretical perspective, I will elaborate on why it is essential to also take children's experiential knowledge into account. Children's experiential knowledge enriches theoretical knowledge and offers a deeper insight into their digital resilience and what they need to grow and flourish in the digital society.

About Esther Rozendaal: Esther Rozendaal is full professor of Digital Resilience at the Erasmus School of Social and Behavioural Sciences of Erasmus University Rotterdam. Together with her team, she addresses complex and pressing societal issues related to youth, digital media, and well-being. Her goal is to gain insights that help children and young people make optimal use of the opportunities offered by digital media, while also equipping them to cope with its risks. She employs participatory research methods, actively involving young people as co-researchers. Esther is also co-founder of the Movez Network, in which she collaborates with other stakeholders (e.g., schools, social organizations, parents) and young people to empower the next generation to become smart, healthy, and happy media users. See: <https://movez-network.eu/>

Detailed program: Thursday June 11

Time	Activity	Room
9:30 – 10:00	Registration and coffee	Tuesday Sky Bar
10:00 – 10:15	Conference opening	UnbeaTable
10:15 – 11:45	<p>Parallel sessions (symposia)</p> <p>S1. J. Vietze: Ethnic-racial socialization in Europe: Looking back and new frontiers.</p> <p>S2. D. Liu: Advancing parenting research with individual participant data meta-analyses (IPDMAs).</p> <p>S3. Y. Grootjans & C. Koevoet: Growing up in a social world: External influences on social anxiety symptoms in adolescence.</p> <p>S4. S. Sweijen: Youth-informed science: Integrating young people’s perspectives in social cognition and mental health research</p>	<p>UnbeaTable</p> <p>UnforgeTable</p> <p>CreaTable</p> <p>The Corner</p>
11:45 – 12:45	<p>Lunch + Posters</p> <p>Posters</p> <p>T1: Ö. Gülen: Deficits in joint attention as a predictor of ASD symptoms: Investigating language development and sex chromosome trisomy effects.</p> <p>T2: C. Lemmen: Generational differences in postnatal mental health in the 21st century: A cohort comparison of Dutch parents.</p> <p>T3: W. Ghazi: Anxiety at school – A novel integrated approach</p> <p>T4: V. Batidzirai: The effectiveness of community-based family support services during the infants’ first 1,000 days on limiting the negative effects of early life stress in families: A systematic review</p> <p>T5: C. Fábrega Zilleruelo: Connected to nature, empowered to act: Efficacy as a moderator of the nature connectedness–proenvironmental behaviour association among Chilean and Dutch adolescents.</p> <p>T6: M. Matetovici: Language through routines: A brief questionnaire measuring parental speech input in early childhood.</p> <p>T7: S. Özkara: The biopsychosocial mechanisms of stress reactivity: The roles of sex, gonadal hormones and attachment avoidance.</p> <p>T8: M. Matthezing: Testosterone, pubertal Timing, and frontal–limbic emotional control in late adolescence.</p> <p>T9: Y. Rbeiz: A meta-analysis on violent versus non violent offending: In search of differential youth predictors of (young) adult offending.</p> <p>T10: A. Hudson: Is it a threat? Interpretation bias and belief updating in socially ambiguous situations amongst young adults with maltreatment experiences.</p> <p>T11: M. Oldeman: Algorithm detox: A multiple-baseline study of youth ‘cleaning’ their social media feed from mental health content to improve mental health.</p>	Tuesday Sky Bar

	<p>T12: A. C. Hanches: Gender differences in alcohol-cue reactivity - The role of childhood trauma.</p> <p>T13: E. Kurtisi: What makes us clique? Comparing multiple dimensions of homophily in children’s peer networks.</p> <p>T14: G. Zuo: Effects of physical and mental tracing on learning and cognitive load in split-attention materials.</p> <p>T15: C. Pas: Does our body notice? Age differences in physiological responses to (un)expected prospective memory cues.</p> <p>T16: L. Levelt: Beyond single predictors: A data-driven approach to identifying psychosocial profiles linked to resilient and vulnerable developmental trajectories.</p> <p>T17: L. Rodenburg: Working Together Works: Parents, schools and frontline services preventing criminal behaviour and school dropout.</p>	
<p>12:45 – 14:15</p>	<p>Parallel sessions (symposia + flashtalks)</p> <p>Symposia</p> <p>S5. A. Vreeker & C. Smit: Unwrap your mind: Examining the influence of risk and resilience factors on mood and anxiety symptoms in Dutch youth.</p> <p>S6. K. Provida: Use of technology for attachment assessment in infancy, childhood, and adulthood in research and clinical settings.</p> <p>S7. L. de Jonge-Hoekstra: Children, chatbots, and classrooms: Understanding the role of AI and digital technologies in learning and interaction (round-table discussion)</p> <p>Flashtalks (Theme: Adolescence)</p> <ol style="list-style-type: none"> J. van de Wetering: What motivates youth to choose pro-environmentally despite personal costs? Insights from a delay discounting task. M. Osinga: Adolescent precursors of parenting self-efficacy: Evidence from cohort. J. van Oosten: Growing up digital: Validating a lifespan measure of digital skills for late childhood and early adolescence. K. de Gieter: Longitudinal associations between identity development and emotion regulation in young adults: Evidence from a latent change model. M. Destree: Virtual reality for resilience – Understanding multi-problem youth’s priorities in using VR to train social skills and resistance to criminal behavior, aggression and substance abuse. S. Dua: Acceptability, feasibility and preliminary patterns of Early Adolescent Skills for Emotions (EASE) intervention: A mixed-methods pilot study in an international school in the Netherlands. M. Andrikopoulou: Emotional action control and affective symptoms in early adolescence. S. Dobbelaar: Neural reward sensitivity for self and others as a marker of social connectedness: an fMRI study. 	<p>UnbeaTable</p> <p>UnforgeTable</p> <p>CreaTable</p> <p>The Corner</p>

14:15 – 15:00	Keynote Speaker: Rogier Kievit	UnbeaTable
15:00 – 15:45	Keynote Speaker: Amy Orben	UnbeaTable
15:45 – 16:00	Coffee break	Tuesday Sky Bar
16:00 – 17:30	<p>Parallel sessions (symposia + flashtalks)</p> <p>Symposia</p> <p>S8. S. Slagter: Triangulating evidence on youth social media use: Platforms, individual differences, and interventions.</p> <p>S9. T. Cillessen: Peer nomination data: Secure collecting methods</p> <p>S10. I. Simpson-Kent: Socio-emotional sensitivity in adolescence: Brain development and social rejection, emotional experience, and well-being dynamics</p> <p>Flashtalks (Theme: Mental Health)</p> <p>1. A. Miers: By what mechanisms does a skill learning and exposure focused group intervention reduce social anxiety in pre-adolescent youth? A single-case experimental study using ecological momentary assessment.</p> <p>2. S. Boele: Parental overprotection going digital: Digital tracking of adolescents' school performance, location, and finances.</p> <p>3. J. Dano: Mapping the impact of early smartphone and social media acquisition on minors: A systematic scoping review.</p> <p>4. Y. Koopmans: Evocative gene–environment correlations in families: How children's genes evoke parental depressive symptoms.</p> <p>5. L. Schroer: The making of a Pinocchio: Parental socialization of children's lying.</p> <p>6. J. Lukoff: Improving study compliance among multi-problem young adults: A personalization approach to EMA research.</p> <p>7. L. van Houtum: The impact of emotional maltreatment on hippocampal subfield development in adolescents at familial high-risk for severe mental illness.</p> <p>8. N. Chiemlowice-Szymanski: Adolescent ADHD symptoms, rejection sensitivity in emerging adulthood: The role of peer rejection.</p>	<p>UnbeaTable</p> <p>UnforgeTable CreaTable</p> <p>The Corner</p>
17:45 – 18:15	Social Program: Street Art Tour	Start in Tuesday Sky Bar
18:30	Dinner	TBA

Detailed program: Friday June 12

Time	Activity	Location
9:00 – 9:30	Registration and coffee	Tuesday Sky Bar
9:30 – 11:00	<p>Parallel sessions (symposia)</p> <p>S11. L. Todorovic: Sexual development in digital contexts.</p> <p>S12. C. Lemmen: A multidisciplinary perspective on the perinatal period.</p> <p>S13. A. Bülow: Parenting in daily life: Intensive longitudinal methods studying parenting across childhood.</p> <p>S14. L. Elzinga: Worth the effort: Social and contextual influences on effortful behavior during adolescence and young adulthood.</p>	<p>UnbeaTable</p> <p>UnforgeTable</p> <p>CreaTable</p> <p>The Corner</p>
11:00 – 11:30	Coffee break	Tuesday Sky Bar
11:30 – 12:15	Keynote Speaker: Esther Rozendaal	UnbeaTable
12:15 – 13:15	<p>Lunch + Posters</p> <p>Posters</p> <p>F1: L. Denis: Identity negotiation: Associations with self-functioning and psychopathology.</p> <p>F2: A. Salmanova: Psychological interventions for first-episode, early, and chronic psychosis: A systematic review and meta-analysis of their effectiveness.</p> <p>F3: X. Li: Cross-cultural variability of the development of the Liking Gap in adolescence.</p> <p>F4: K. Oostrum: The online political and news climate in adolescents' donated TikTok feeds.</p> <p>F5: A. Snijders: Research proposal: Online risk-taking behavior and social connectedness in adolescence.</p> <p>F6: H. Armstrong: The anatomy of entitlement.</p> <p>F7: E. Neijenhuis: Balancing speed and accuracy on the Rapid Automated Naming Task in pre- and first grade children.</p> <p>F8: Q. Sa: Profiles of online gaming motives in early adolescence: Patterns, changes over time, and links with mental health.</p> <p>F9: A. Hudson: What do social cognition tasks actually measure? The role of mentalising and empathy in social skills and resilience amongst young adults with maltreatment experiences.</p> <p>F10: E. Miedzobrodzka: Inequalities in digital media use and youth development – A systematic review.</p> <p>F11: J. M. Rodriguez Buritica: Observational learning in developing humans and artificial agents.</p> <p>F12: S. Vermeent: Computational modeling of decision making enhances the adversity researcher's toolbox.</p> <p>F13: M. Low: Autonomy in AI-blended work contexts: Young adults not ready, but becoming.</p>	Tuesday Sky Bar

	<p>F14: T. Zickert: Longitudinal associations between interparental relationship quality, parenting and parent-child relationship functioning: A meta-analysis.</p> <p>F15: A. Klugmann: Empathy in the context of sibling relationships: A meta-analysis and systematic review.</p> <p>F16: A. Hartmann: Explicit and Implicit Popularity Motivations: Exploring Their Role in Bullying</p>	
12:45 – 13:15	General Assembly	UnbeaTable
13:15 – 14:15	<p>Workshops</p> <p>Round-table discussie – Pedagogiek in VNOP (NL)</p> <p>Workshop – Thrive Track - Supporting Psychology Students Through Development and Resistance</p> <p>Workshop – Betekenisvolle jongerenparticipatie: stem van jongeren in beleid en onderzoek (NL)</p> <p>Workshop – The PhD Coach Kit for PhD students</p> <p>Workshop – The PhD Coach Kit for PhD supervisors</p>	<p>UnbeaTable</p> <p>UnforgeTable</p> <p>CreaTable</p> <p>The Corner</p> <p>SuiTable</p>
14:15 – 15:45	<p>Parallel sessions (symposia + flashtalks)</p> <p>Symposia</p> <p>S15. L. Bradt: How socializing agents shape adolescents' social media use.</p> <p>S16. P. Jansen: Youth mental health in a today's society: Insights from the Dutch Generation R cohort.</p> <p>S17. L. Janssen: Youth perspectives on emotional disclosure and regulation in everyday life.</p> <p>Flashtalks (Theme: Inequalities)</p> <p>1. L. E. Schenker: Does teachers' comfort make low-SES students seem less smart?</p> <p>2. O. Abbatouy: Profiles of autonomy: Combining independence, volition, and pressure to examine well-being, conflict with parents, and the role of immigration background.</p> <p>3. N. Horoz: Are there socioeconomic disparities in children's mindset and teachers' mindset about children in elementary school?</p> <p>4. E. M. Dubois: Neural correlates of adolescents' trust in police: developmental and socio-economic-status effects.</p> <p>5. N. Vullings: Does ability grouping invoke essentialism in adolescence?</p> <p>6. N. Vos: Childhood urban exposure and adolescent mental well-being: A longitudinal study in Amsterdam youth.</p> <p>7. L. N. Alders: Socioeconomic differences in children's self-views.</p> <p>8. J. Bernardo: Why does parental education predict teenagers' school grades? A Children-of-Twins study of teacher evaluations and national exams.</p>	<p>UnbeaTable</p> <p>UnforgeTable</p> <p>CreaTable</p> <p>The Corner</p>
15:45 – 16:00	Dissertation award	UnbeaTable
16:00 – 16:15	Award ceremony + closing ceremony	UnbeaTable
16:15	Drinks and bites	Tuesday Sky Bar

Abstracts: Thursday June 11

Symposium 1 (Parallel Session 10:15 – 11:45)

Symposium title: Ethnic-racial socialization in Europe: Looking back and new frontiers

Chair: Jana Vietze

Symposium abstract: Ethnic-racial socialization (ERS)—the messages and practices through which young people learn about ethnicity, race, and discrimination—plays a crucial role in developmental processes in increasingly diverse societies. Yet most ERS research is rooted in U.S. contexts, raising questions about how these processes unfold in Europe’s distinct sociohistorical and demographic landscapes. This symposium brings together four studies that both review the current state of ERS research in Europe and introduce new directions for understanding how young people navigate diversity and discrimination. First, a preregistered scoping review synthesizes the European literature on parental ERS, identifying key themes as well as major gaps in populations, methods, and conceptualizations. Second, a scale-development project examines how ERS messages shape culturally informed emotion regulation strategies among ethnic minority youth. Third, moving beyond parental influences, a study of German adolescents investigates peer preparation for bias and its links to perceived discrimination and life satisfaction. Finally, research among minoritized youth in the Netherlands explores how heritage and mainstream cultural socialization relate to belonging across social contexts and to bicultural identity cohesion. Together, these contributions highlight how developmental processes unfold within diverse social contexts and illustrate how our research must grow alongside the changing multicultural realities of youth.

Speaker and presenters

Parental ethnic-racial socialization in Europe: A scoping review.

Ymke de Bruijn & Jana Vietze

Children in Europe grow up in societies with high ethnic-racial diversity. It is therefore imperative to understand how they learn about ethnicity and race (ethnic-racial socialization). Knowledge on parental ethnic-racial socialization, however, is very heavily based on U.S. research, and sociohistorical and -political differences limit generalizability. Therefore, the aim of the present study is to create an overview and synthesis of research on parental ethnic-racial socialization in the European context. A preregistered scoping review was conducted following the PRIMSA-ScR guidelines. Three electronic databases (PsychInfo, ERIC, Web of Science) were searched for papers published up and till 2024. After two rounds of screening, 32 out of 1431 papers were deemed eligible and included for data extraction and synthesis. The findings display an overrepresentation of Northern/Western European countries, families of immigrant or minoritized backgrounds and quantitative research on adolescence. Cultural socialization by families or immigrant or minoritized backgrounds has received the most attention. Qualitative study results furthermore describe how parental ethnic-racial socialization is shaped by developmental timing, reactive and reciprocal processes,

intersecting identities, and selective engagement with cultural “others. The findings of this scoping review underscore both the promise and current limitations of research on parental ethnic-racial socialization in Europe. To further this research agenda, we need more systematic inclusion of underrepresented populations, greater investments in qualitative and mixed-methods designs, openness to diverse and self-identified ingroup boundaries and identity meanings, and the development of conceptualizations and measures that reflect Europe’s distinctive sociohistorical trajectories, demographic diversity, and linguistic practices.

The development and validation of the Culturally-Informed Emotion Regulation Scales (CIERS)

Daudi van Veen & Jana Vietze

Discrimination puts the well-being of ethnic minority youth at risk. In response, ethnic minority parents often share messages with youth regarding culture, ethnicity, and discrimination. Such messages, better known as ethnic-racial socialization (Hughes et al., 2006) are linked to an array of psychosocial outcomes (Huguley et al., 2019; Wang et al., 2020), and buffer the negative effects of discrimination (Wang et al., 2025). There is growing recognition that the internal processes involved in ethnic-racial socialization need to be better understood. Drawing inspiration from psychopathology models (Cummings & Miller-Graff, 2015; Gross et al., 1998) and integrative models of minority youth development (Neblett et al., 2012; García Coll et al., 1996), we are investigating a novel premise: Parental ethnic-racial socialization messages shape the formation of culturally-informed emotion regulation strategies in ethnic minority youth. At the conference, I will present data from an ongoing pre-registered two study project. This project aims to develop and validate scales assessing culturally-informed emotion regulation strategies in ethnic minority youth aged 16 to 25. These scales cover the emotions associated with ethnic-racial socialization messages, and to what extent these messages inform cognitive and behavioral emotion regulation strategies after experiencing discrimination. I will discuss the findings of Study 1, including how these scales relate to measures of identity, well-being, and other more traditionally studied emotion regulation strategies. This study is therefore relevant to developmental scientists studying psychopathology, identity, or marginalization.

Peer preparation for bias, perceived discrimination, and adolescents’ life satisfaction: A preliminary mediation analysis

Jana Vietze, Tugce Aral, & Daudi van Veen

Research on ethnic–racial socialization (ERS) has primarily focused on parental practices, while the role of peers in preparing adolescents to navigate discrimination remains less understood. Addressing this gap, the present study examines how peer preparation for bias—messages or discussions that anticipate or explain potential discrimination based on youths’ ethnic or racial background—relates to adolescents’ life satisfaction and whether perceived discrimination mediates this relationship.

Drawing on cross-sectional survey data from 662 cultural minority adolescents in Germany (Mage = 14.75 years, 51% female), preliminary regression analyses indicated

that peer preparation for bias was positively associated with perceived discrimination ($b = .313, p < .001$), yet perceived discrimination was negatively associated with life satisfaction when controlling for preparation for bias ($b = -.249, p < .001$). Preparation for bias was initially negatively associated with life satisfaction ($b = -.074, p = .05$), but this association was no longer significant after accounting for perceived discrimination ($b = -.001, ns$). A Sobel test indicated a significant indirect effect ($Z = -3.61, p < .001$), suggesting that perceived discrimination fully accounted for the association between peer preparation for bias and life satisfaction.

These findings highlight that, while preparation for bias may support youth in anticipating discrimination, it may also coincide with greater awareness of discriminatory experiences linked to lower well-being. Focusing on peer processes, this study contributes to rethinking ERS in adolescence and highlights the importance of peer contexts for understanding how young people navigate discrimination in contemporary European societies.

Cultural socialization and belonging among minoritized youth in the Netherlands

Mehmet Day, Amaranta de Haan, Daudi van Veen & Majone Steketee

The present study examines how heritage and mainstream cultural socialization relate to adolescents' belonging across multiple social contexts and how these experiences shape bicultural identity cohesion among minoritized youth in the Netherlands. We investigated ethnic (heritage-oriented) and mainstream cultural socialization as distinct constructs and their associations with three forms of belonging: interpersonal (family and peers), heritage, and national belonging, as well as bicultural identity cohesion. Using cross-sectional survey data from 791 second- and third-generation youth (ages 16–25) in the Netherlands, we estimated structural equation models to examine the differential and combined effects of these socialization components. Measurement analyses revealed substantial empirical overlap between ethnic and mainstream cultural socialization, producing inadmissible solutions when modeled as two highly correlated latent constructs. Nevertheless, retaining the theoretically grounded distinction yielded meaningful differences. Ethnic cultural socialization was positively associated with interpersonal and heritage belonging, but not national belonging. In contrast, mainstream cultural socialization was positively related to interpersonal and national belonging, but not heritage belonging. When both components were combined into a single cultural socialization factor, these patterns disappeared and cultural socialization showed positive associations with all belonging domains. Across both modeling strategies, however, only heritage belonging was significantly associated with bicultural identity cohesion. These findings highlight the importance of cultural socialization for adolescents' belonging while suggesting that heritage- and mainstream-oriented processes may operate differently. They also underscore the importance of heritage-based belonging for identity cohesion and the need for more refined conceptualization and measurement of mainstream cultural socialization in European contexts.

Symposium 2 (Parallel Session 10:15 – 11:45)

Symposium title: Advancing parenting research with Individual Participant Data Meta-Analyses (IPDMAs).

Chair: Danni Liu

Discussant: Sophia Backhaus

Symposium abstract: Pooling participant-level data across studies in individual participant data meta-analyses (IPDMAs) yields novel opportunities to understand the determinants and effects of parenting. Our symposium presents three IPDMA studies: Study 1 examines whether parents' post-traumatic stress predicts parenting stress and whether this association varies by parents' childhood trauma. Study 2 examines whether parenting interventions reduce disruptive child behavior through parents' behaviour management techniques and whether this pattern varies by parental nurturance. Study 3 examines competing hypotheses about whether parenting intervention effects on child conduct problems vary by child irritability. An expert in IPDMA and research synthesis will lead the discussion.

Speaker and presenters

Post-traumatic stress disorder, trauma and parenting stress: an individual participant data meta-analysis

Laurien Meijer

Background: Parental post-traumatic stress disorder (PTSD) is associated with heightened parenting stress, but it is unknown whether this relation depends on the timing (childhood or adulthood) and type of trauma (interpersonal or non-interpersonal). In survivors of childhood interpersonal trauma, PTSD and parenting stress may be more strongly intertwined. **Objective:** This IPDMA examined whether the relation between parental PTSD and parenting stress is moderated by childhood interpersonal trauma.

Methods: Using one-stage IPDMA, data from published studies and unpublished datasets were synthesized and analyzed using multilevel linear regression. **Results:** Twelve datasets were included (N = 1249: 92.5% female, M age = 32.8 years, 53.8% ethnic minority).

Significant and positive main effects of PTSD and childhood interpersonal trauma on parenting stress were consistently found across studies. A moderating effect of childhood interpersonal trauma on the relation between PTSD and parenting stress was not found, but this finding may be impacted by limited data coverage. The proportion of individual-level variance in parenting stress explained by the model with main and interaction effects while controlling for education level was small to medium ($R^2 = .12$, $p = .003$).

Conclusion: This study was the first to investigate relations among parental childhood interpersonal trauma, PTSD, and parenting stress across studies using IPDMA methodology. Despite limitations in data coverage, its findings demonstrated that links among childhood interpersonal trauma, PTSD, and parenting stress were robust across populations and settings. This implies PTSD symptom reduction may be beneficial in reducing parenting stress, regardless of whether the parent experienced childhood interpersonal trauma.

The role of nurturance in parenting program outcomes: An individual participant meta-analysis

Merlin Nieterau, Suzanne Jak, Liina Björg Laas Sigurðardóttir, Danni Liu, G.J. Melendez-Torres, Frances Gardner, Sophia Backhaus, Geertjan Overbeek & Patty Leijten

Parenting programs grounded in social learning theory aim to reduce disruptive child behavior by strengthening parents' behavior management techniques. Yet increases in these techniques do not always translate into behavioral improvements in children. One explanation is that such techniques may work only, or especially, when delivered within a warm, supportive family environment, as children who feel unsupported may perceive techniques such as praise as inauthentic and consequences as rejecting or unfair. We tested the hypothesis that parental nurturance enhances parenting program effects on disruptive child behavior using individual participant data from 5,265 families across 38 European randomized trials of behavioral parenting programs. After harmonization, we applied one-stage meta-analytic structural equation modeling with trial-level random effects. Preliminary findings show that changes in parents' behavior management techniques partially mediated program effects on disruptive child behavior. Greater use of positive reinforcement and non-violent discipline were each associated with lower disruptive behavior and carried significant indirect effects from intervention to child disruptive behavior. Parental nurturance did not moderate associations between parents' behavior management techniques and child disruptive behavior. Instead, nurturance showed a unique association with lower disruptive behavior and constituted an additional indirect pathway from intervention to child disruptive behavior. These findings indicate that strengthening parental nurturance may represent an additional mechanism of intervention impact rather than a condition required for behavior management to be effective. Parenting programs thus seem to influence disruptive behavior through a parallel process of both enhanced behavioral management and parental nurturance.

Does the effect of parenting interventions on children's conduct problems vary by child irritability? An individual participant data meta-analysis

Danni Liu, Liina Björg Laas Sigurðardóttir, G.J. Melendez-Torres, Frances Gardner, Sophia Backhaus & Patty Leijten

Although parenting interventions based on social learning theory (SLT) can effectively reduce children's conduct problems, little is known about which child characteristics explain why some children benefit more than others. A promising candidate is child irritability—a phenotype that cuts across multiple forms of child psychopathology. Besides this transdiagnostic relevance, evidence points to three accounts of how irritability may also moderate parenting intervention effects: (1) more irritable children may benefit more because higher irritability may reflect greater sensitivity to environmental input and, in turn, greater responsiveness to improved parenting; (2) less irritable children may benefit more because they may have stronger cognitive and emotional regulation capacities and, in turn, may more readily learn and adapt to changes in parental responses introduced by the intervention; and (3) children with intermediate levels of irritability may be at a “sweet spot” for behavior change because they have both room to improve and sufficient regulatory capacity to engage with and benefit from the intervention. We tested these contrasting theoretical accounts using a preregistered

individual participant data meta-analysis (IPDMA) of 3,192 families across 21 European randomized controlled trials of SLT-based parenting interventions. In stage 1, we fit trial-specific linear, quadratic, and cubic irritability-by-intervention models. In stage 2, we pooled the trial-specific interaction estimates from each trial's best-fitting model using a random-effects meta-analysis. Results showed no evidence that intervention effects varied by child irritability, suggesting that these parenting interventions were similarly effective across the irritability continuum. We discuss several explanations for this null irritability moderation finding.

Symposium 3 (Parallel Session 10:15 – 11:45)

Symposium title: Growing up in a social world: External influences on social anxiety symptoms in adolescence

Chair: Yvette Grootjans & Coen Koevoet

Symposium abstract: Social experiences are central to the emergence and persistence of social anxiety across development. From subtle social cues to explicit evaluation by others, interpersonal contexts shape how children and adolescents think, feel, and behave. This symposium examines social influences across multiple levels, spanning cognitive processing (Zhang), parental communication (Severo), peer observation (Grootjans), and day-to-day prosocial interactions (Koevoet). By integrating experimental, developmental, electrophysiological, and intensive longitudinal approaches, this symposium provides a comprehensive understanding of how social contexts contribute to social anxiety across childhood and adolescence.

Speaker and presenters

When does avoidance of positive faces occur in individuals with high social anxiety?

Xinyu Zhang, Esther van den Bos & Anne Miers

Objective: Cognitive models of social anxiety suggest that individuals with high social anxiety (HSA) may avoid attending to positive social stimuli, particularly under social threat. However, it remains unclear whether attention to positive social stimuli is related to state anxiety and at what time scale avoidance of positive stimuli occurs. The present study therefore examined the effects of state anxiety and stimulus duration on attention to happy faces in HSA individuals. **Method:** Social threat was manipulated by providing different instructions. State anxiety was measured before and after the instructions. Specifically, half of the 32 HSA participants were told they would be required to give a speech at the end of the experiment. Attention to happy (vs. neutral) faces was assessed using a dot-probe task with stimulus durations of 500 ms and 1500 ms. Attentional responses were indexed separately as avoidance and approach scores. **Results:** A repeated-measures ANCOVA showed a significant interaction between change in state anxiety and stimulus duration on avoidance scores ($p = .019$). Follow-up analyses showed that stronger increases in state anxiety were correlated with larger differences in avoidance between the two stimulus durations, with greater avoidance at 500 ms compared to 1500 ms. **Conclusion:** These findings suggest that state anxiety influences when attentional avoidance of positive faces in HSA individuals occurs. Avoidance appeared to emerge at an earlier stage of processing under higher state anxiety. In order to contextualize the findings, we aim to compare this pattern to how low-anxious individuals attend to positive social stimuli.

The effect of parental threat communication on children's stress during a social performance task: Moderation by trait social anxiety and fear of negative evaluation

Mario Carlo Severo, Cosima Nimphy, Michiel Westenberg, Koraly Pérez-Edgar & Evin Aktar

Social anxiety is one of the most common psychological disorders, emerging from a complex interplay between intrinsic characteristics and environmental influences. A key mechanism underlying its development is social learning, in which verbal instructions from parents to children can shape the learning of fear. The present multi-method, within-subject experimental study examined, for the first time, how parental threat communication influences children's fear responses during a social performance task. Additionally, it explored whether parental verbal threat information affects adolescents differently depending on their social anxiety, fear of negative evaluation, or their parents' social anxiety levels. Seventy-seven adolescents (Mage = 11.62 years, 42 girls) received standardized verbal threat or safety information about two strangers from their parents. Following this, each participant delivered a brief speech in front of one of the strangers. Adolescents' fear of strangers during social performance was assessed using behavioral (observed anxiety and avoidance), physiological (heart rate), and cognitive (subjective performance perception and attention bias) measures. Each measure was analyzed using separate general linear mixed models. The results revealed that exposure to parental verbal threat information, compared to safety information, significantly affected adolescents' subjective evaluations of their social performance, but not the other measures of fear of strangers. Moreover, adolescents' social anxiety, fear of evaluation, and parental social anxiety were not associated with greater susceptibility to parental verbal threat information. Overall, these findings underscore the complexity of social fear learning and prompt additional research to more effectively examine how verbal fear learning contributes to social anxiety development.

The influence of peer observation on error-related negativity and the association with social anxiety in adolescents

Yvette Grootjans, MoPriya Somai, Ingmar Franken & Anita Harrewijn

Error monitoring is a crucial part of development as it can be an underlying process for observational learning. Error monitoring is modulated by social situations, e.g. event-related negativity (ERN) amplitudes are increased when performance is observed by another participant. This social-effect ERN may be especially pronounced during adolescence, a period marked by heightened social sensitivity and ongoing neural development. Additionally, alterations in the ERN have been linked to psychopathology that often develops during adolescence: increased ERN has been associated with internalizing symptoms, particularly anxiety. Importantly, this enhancement seems to be especially pronounced under social observation, as individuals with internalizing symptoms have shown larger ERNs when being observed compared to when performing tasks alone. In this talk, I will present findings from the Growing Up Together in Society study with 430 participants aged 10–20 years (Mage=15.59, SDage=2.67, 52.90% females), recruited to reflect the sociodemographic diversity of the Rotterdam area. They completed a Go/NoGo-task alone and while being observed by an unfamiliar peer (social condition), and EEG was recorded in both conditions in both participants. The social-effect ERN was operationalized as the difference in ERN between the alone and social condition. This large-scale study will give novel insight in the developmental effects on the social-effect ERN, possibly showing a peak in mid-adolescence. In addition, effects on social anxiety will be examined. These developmental and clinical findings from a

large, diverse sample will provide important insight into error monitoring across adolescence and its association to internalizing symptoms.

Facing fears by helping peers? Unraveling the two-way street between social anxiety and prosocial behaviors in adolescent daily life

Coen Koevoet, Lysanne te Brinke, Savannah Boele, Miriam Hollarek, Matthias Wieser & Anita Harrewijn

Adolescence is characterized by a shift from a family-based toward a peer-based social support network. Prosocial behavior plays a crucial role in building and strengthening peer relationships during this period. At the same time, increasing social expectations may elicit feelings of social anxiety. We propose a bidirectional relationship in which higher levels of social anxiety may inhibit one from engaging in prosocial behavior, whereas engaging in prosocial behavior may alleviate social anxiety through positive social feedback. This study examines the interplay between momentary social anxiety and prosocial behavior using an Experience Sampling Method (ESM) design. Over a 14 day-period, 242 adolescents aged 10-20 years enrolled in the Growing Up Together in Society (GUTS) study reported on their social anxiety and prosocial behavior multiple times via their personal mobile device. The main aim of the study is to investigate whether reciprocal associations between social anxiety and prosocial behavior vary across individuals. To capture potential heterogeneity in associations, we adopt an idiographic approach, estimating pre-registered dynamic structural equation models for each adolescent separately. These analyses will determine whether reciprocal day-to-day associations are present universally or only in subgroups of adolescents. If distinct patterns emerge, adolescents will be grouped accordingly, and potential moderators of these differences will be explored. By examining within-person dynamics, this study aims to provide novel insight into how micro-level social processes may shape adolescents' broader socio-emotional development.

Symposium 4 (Parallel Session 10:15 – 11:45)

Symposium title: Youth-informed science: Integrating young people’s perspectives in social cognition and mental health research

Chair: Sophie Sweijen

Symposium abstract: To improve adolescent wellbeing, it is essential that research meaningfully incorporates the perspectives of young people. This symposium integrates three studies that apply youth-informed approaches to understanding social and mental wellbeing. The first demonstrates how youth participation can strengthen scientific methodology by co-designing social cognition tasks with adolescents aged 10-18 from young people’s advisory groups. The second presents large-scale participatory dialogues with nearly 3000 young people, in which they shared the challenges they face and the solutions they envision to inform mental health policy. Finally, the third applies an integrative approach on how social and neighborhood environments contribute to wellbeing.

Speaker and presenters

Young people’s advisory groups: Improving ecological validity in social cognition research with adolescents

Lucia Hernandez-Pena

Research on social cognition requires high ecological validity to ensure that measures accurately reflect real-life social experiences. This is particularly important in adolescence, where language, context and developmental stage might influence whether response options seem valid. To create tasks that are meaningful and representative of adolescents’ experiences, it is highly beneficial to involve young people directly in the design process. In this talk, I will present two novel social cognition tasks assessing social processing and interpretation biases. We collaborated with Young People’s Advisory Groups, including typically developing and neurodivergent adolescents aged 10-18, to co-design and refine social scenarios, potential interpretations and behavioural response options. We aimed to ensure that response options reflect genuine engagement with those specific social behaviours, rather than being influenced by perceptions of the options as unrealistic or inappropriate. This allowed us to design tasks that are more inclusive, accessible and better aligned with adolescents’ real-life social experiences. We will discuss the advantages and challenges of integrating advisory groups into research. This will include considerations for adapting tasks in terms of language and format, as well as how involving young people can improve the scientific rigour and real-world relevance of social cognition research.

Improving youth mental health through youth participation

Sophie W. Sweijen, Yara J. Toenders, Mirjam Oosterhuis, Emma Oosten, Frederieke Vriends & Eveline A. Crone

The mental health of young individuals is under increasing pressure, which can be attributed to multiple societal challenges, such as performance pressure and the aftermath of COVID-19. To actively involve youth in identifying the challenges and solutions for their own wellbeing, we developed the participation platform PRAATPOWER. This platform facilitates dialogues between young people and schools, communities, and professionals. Following the YoungXperts method, in collaboration with societal partner MIND Us, the project aimed to collect and translate the ideas resulting from these dialogues into concrete youth-informed policy recommendations to improve youth mental health, rather than focusing solely on professional care. In total, 167 dialogues with almost 3000 young individuals aged 10 to 30 were held. Regarding the challenges youth experience, youth report feeling pressured to meet high expectations, mostly in school settings. They emphasize the need for more attention to mental health in these settings. However, they experience barriers to seeking help due to shame, anxiety about potential (negative) consequences, and stigma. Youth emphasize the importance of a listening ear, engaging in activities that promote social connection, and relatable role models. Talking to someone they trust and with whom they feel safe, emerged as a central mechanism for better wellbeing. While some youth preferred to talk with familiar others, others preferred support from less familiar individuals, such as school-based or online coaches. These findings underscore the need for multiple accessible pathways to promote youth mental wellbeing, allowing youth their autonomy in choosing the support that best fit their needs.

Social and neighbourhood environments and adolescent mental health

Blanca Piera Pi-Sunyer

Adolescence (roughly 10 to 24 years) is characterised by concurrent maturation of biological, cognitive and social functioning and is associated with heightened vulnerability to mental health difficulties. As such, adolescent mental health has become a major target for social policy, with a growing interest in understanding how social and environmental resilience factors may foster healthy development. In this talk, I present two studies investigating how social and neighbourhood environments (e.g. friendship groups and neighbourhood green areas) may be related to adolescent wellbeing. In the first study, I use data from 341 girls (8 to 15 years) from London, UK, to investigate the relationship between friendship quality and self-judgements. The results show that young people who report higher friendship quality also show higher positive and lower negative self-judgments. In the second study, I use data from 729 young people (9 to 17 years) from the Spanish Childhood and Environment cohort study to investigate the relationship between neighbourhood characteristics and social and psychological wellbeing. The results show that older adolescents (aged 15 years and older) who live in neighbourhoods with greater residential greenness report higher psychological wellbeing, with a role of higher social support and autonomy in this relationship. Together, the findings suggest that social support from family and friends are important components of adolescent wellbeing and that neighbourhood greenness may foster positive social and psychological development.

Poster Sessions (11:45 – 12:45)**T1. Özgür Gülen: Deficits in joint attention as a predictor of ASD symptoms: Investigating language development and sex chromosome trisomy effects**

Sex chromosome trisomy (SCT) occurs in ~1 in 650–1000 births and is associated with language delays, socio-cognitive difficulties, and increased risk for autism spectrum disorder (ASD). Joint attention (JA), the ability to follow another person's gaze or pointing gesture, is important for language acquisition and has been identified as a precursor of ASD symptoms. However, it remains unclear how JA, language, and ASD symptoms are related in SCT. Therefore, we tested three hypotheses: (1) children with SCT show JA deficits compared to controls (2) lower JA would predict weaker receptive and expressive language skills, and (3) language would mediate the link between JA and ASD symptoms in the SCT group. In total, 35 children with SCT and 31 controls (12-24 months) were included. JA was assessed with eye tracking at baseline and parents reported about language level and ASD symptoms both concurrently and 1-year later. Children with SCT showed lower JA accuracy than controls, but JA was not associated with language or ASD symptoms. However, children with SCT exhibited slower language growth, with widening differences over time (i.e., growing into deficit). Taken together, these findings emphasize early risks in SCT and the importance of timely monitoring.

T2. Caro Lemmen: Generational differences in postnatal mental health in the 21st century: A cohort comparison of Dutch parents

Several studies indicate that the mental health of parents (to be) in the 21st century is lower compared to the 1970s, 1980s, and 1990s. Over the course of the 21st century itself, studies have also reported decreasing mental health levels in the general population. Several societal developments may contribute to a decrease in parental mental health, specifically increasing levels of individualism and perfectionism in Western countries. To our knowledge, however, no prior study has explored this potential deterioration in parents' mental health over the course of the 21st century.

This study compares the postnatal mental health of mothers in 2002-2006 to mothers in 2017-2021 during the first six months postpartum using two population-based cohorts (secondary data analyses in Generation R and Generation R Next). Additionally, it will explore whether and how predictors related to individualism and perfectionism differ and whether their association with postnatal mental health is different across cohorts. Specifically, the study will consider the following predictors related to individualism: perceived social support and formal (medical) support. With regards to parental perceptions and perfectionism, reports of infant sleeping problems and infant excessive crying will be included as predictors. We expect that with rising expectations that parents have of themselves and of their children, parents increasingly experience these behaviors as problematic and thus a stronger association with postnatal mental health in the most recent cohort. In June, we will present descriptive comparisons and present the preliminary results of a multi-group confirmatory factor analysis comparing the two cohorts.

T3. Wiam Ghazi: **Anxiety at school – A novel integrated approach**

Different types of anxiety in the school context have mostly been studied separately. This is problematic, because a student who feels pressure to perform well may also experience heightened test anxiety, and social anxiety may worsen feelings of performance pressure. The goal of this study was to develop a novel integrated model of anxiety at school. 168 students aged 10-26 years (mean age = 19.01 years, SD = 4.46, 67.3% female) filled in online questionnaires measuring different types of anxiety at school: social anxiety, test anxiety, performance pressure (parental and general), school anxiety (worries about attending school), and generalized anxiety. They also reported their grades, extrinsic and intrinsic motivation, and school burn-out. All types of anxiety were associated, $r>0.16$, $p<0.049$, and were associated with lower grades, $r<-0.16$, $p<0.23$, $p<0.28$, $p<0.001$. When all types of anxiety at school were included in one model, only school anxiety was associated with lower grades, $\beta=-0.24$, $p=0.010$. Performance pressure appeared most strongly linked to motivation, likely due to conceptual overlap, whereas anxiety about attending school (school anxiety) was most strongly related to school performance. This suggests that when anxiety becomes severe enough to affect school attendance worries, it may have the greatest impact on students' grades. Gaining more insight into anxiety at school is therefore crucial for developing preventive interventions, preferably low-burden, everyday support strategies that enable teachers to address emerging anxiety symptoms before they escalate to clinical levels.

T4. Vongai Batidzirai: **The effectiveness of community-based family support services during the infants' first 1,000 days on limiting the negative effects of Early Life Stress in families: A systematic review**

Background: Early life stress (ELS) during the first 1,000 days of life can have lifelong consequences by affecting multiple biological and developmental systems. Parents play a pivotal role as their wellbeing and parenting practices impact their child's exposure to stress and access to responsive and supportive care. Early interventions aiming to improve parents' wellbeing or practices may limit the negative impact of ELS. Evidence on the effects of early interventions among clinical and high-risk populations is strong. However, for low- to medium risk families, evidence is scarcer, while such families comprise the majority and potentially yield the largest population-level benefits. Community-based, easily accessible family support services may be particularly promising, as these offer low-threshold support during pregnancy and early parenthood. However, a comprehensive synthesis of evidence on their effectiveness for parental outcomes in the first thousand days lacks currently. Therefore, the aim of this systematic review is to synthesize the evidence on the effects of community-based family support services initiated during the first 1,000 days on parental wellbeing and parenting practices. Methods: This study was preregistered in OSF, and the systematic literature searches will be conducted in PsycINFO, PubMed, and Web of Science in March 2026. ASReview will be used for title/abstract screening. English-language, peer-reviewed primary studies with a quantitative or mixed-methods design assessing community-based family support services will be included. Potential additional studies will be traced

through backward citation and contacting authors. Results: At the conference, the preliminary results of the systematic review will be presented and discussed.

T5. Catalina Fábrega Zilleruelo: Connected to nature, empowered to act: Efficacy as a moderator of the nature connectedness–Proenvironmental behaviour association among Chilean and Dutch adolescents

Background: Adolescents and young adults face the profound challenge of the climate crisis. While nature connectedness fosters pro-environmental behaviour (PEB), we propose that feeling capable of making a difference strengthens this relationship. This cross-cultural study examines whether the sense of efficacy moderates the association between nature connectedness and PEB among adolescents and young adults in two countries with contrasting climate vulnerabilities and histories of civic mobilization: Chile and the Netherlands. We hypothesize that nature-connected adolescents with higher perceived efficacy will exhibit the highest PEB, and explore whether this moderating effect varies in magnitude across cultural contexts. Method: Drawing on data from two independent samples, the Chilean cross-sectional sample includes 418 adolescents from 12 to 18 years old ($M=14.3$ years, $SD=1.8$). The Dutch longitudinal sample includes 1578 participants (T1 age range 12–25 years; MageT1, $M=19.3$ years, $SD=4.18$). Nature connectedness, efficacy, and PEB were measured using validated self-report instruments adapted for each cultural context. In each sample, we will conduct hierarchical regression analysis, controlling for age, gender, and socioeconomic status. For cross-cultural comparison, we will use Dutch T1 data alongside the Chilean sample, focusing on patterns of associations. Additionally, longitudinal analyses will examine whether efficacy moderates the relationship over time within the Dutch sample. Conclusion: This study offers preliminary insights into developmental and cultural variation in adolescents' environmental agency. By identifying context-specific patterns in this moderating model, we expect to inform culturally tailored interventions to empower young people. Analyses conducted during my research internship will be presented at the conference.

T6. Magda Matetovici: Language through routines: a brief questionnaire measuring parental speech input in early childhood

A key predictor of individual differences in children's language skills is caregiver language input. To assess caregiver language input at scale, large-scale studies of early language development require efficient, low-cost methods. While recordings of caregiver-child interactions are the gold standard for assessing speech-based language input, their high resource demands and privacy-related consent barriers often limit their feasibility. As a practical and scalable alternative, we developed a brief caregiver-reported questionnaire of parental speech input. This poster reports the measure's validity and reliability. Participants were 90 mothers and 71 fathers of children aged 26–38 months, including 68 spouse pairs. Our pre-registered analyses use confirmatory factor analysis to evaluate nine items—both new and adapted from existing instruments—as indicators of the latent construct of parental speech input. We also assess the items' psychometric properties by examining intercorrelations, factor loadings, and internal consistency. To

establish construct validity, we correlate the latent parental speech input factor derived from the questionnaire with observed speech input from day-long recordings. To contextualize parental speech input, we collected detailed daily schedules to estimate the time each caregiver spends interacting with the child. We also compare the latent factor to children's language development assessed via parent reports and direct language tasks, since parental speech measures have reliably shown positive correlations with children's language measures in the literature. Results will be available by the time of the VNOP conference. This work provides a practical tool for assessing parental speech input in large-scale studies or resource-constrained studies of early language development.

T7: Sude Özkara: The biopsychosocial mechanisms of stress reactivity: The roles of sex, gonadal hormones and attachment avoidance

The progesterone-to-estradiol ratio (Pg/E2) represents a potential predictor of stress reactivity that is seldomly investigated in females and unexplored in males. Additionally, adult attachment style, reflecting expectations and patterns in how individuals relate emotionally to others, may further modulate how hormonal factors influence stress responses. This study examined sex differences in how Pg/E2 and adult attachment interact to predict stress reactivity to a social stressor. Participants (170 females in follicular phase; 62 males; aged 18–25) were randomly assigned to a social inclusion or social exclusion condition using the Ostracism Online paradigm. Salivary progesterone and estradiol were assessed prior to the manipulation; cortisol and salivary alpha-amylase (sAA) were measured both before and after the manipulation to assess hypothalamic-pituitary-adrenal (HPA) axis and sympathetic nervous system reactivity. Attachment was evaluated using the Experiences in Close Relationships–Revised self-report questionnaire. Hierarchical regression analyses were conducted with social condition included as a covariate. In females, a significant interaction between Pg/E2, attachment avoidance, and cycle day predicted cortisol and sAA reactivity. For cortisol, higher Pg/E2 predicted blunted reactivity during the early follicular phase in females with low attachment avoidance. For sAA higher Pg/E2 predicted greater reactivity across all phases, moderated by attachment avoidance. In males, higher Pg/E2 progressively suppressed cortisol responses as attachment avoidance increased. No interactions involving attachment anxiety emerged in either sex. Results provide novel evidence for biopsychosocial mechanisms whereby gonadal hormones and attachment avoidance jointly shape stress reactivity through sex-specific and cycle-dependent pathways, with implications for understanding individual vulnerability to stress-related psychopathology.

T8: Milou Matthezing: Testosterone, pubertal timing, and frontal–limbic emotional control in late adolescence

Emotional action control – the ability to regulate emotional responses – undergoes profound changes during adolescence, a sensitive window for socio-emotional brain development. Shaped by rising gonadal hormones acting on developing frontal–limbic circuitry, this maturation is particularly evident in the lateral frontal pole (FPI) and amygdala: regions shown to be crucial for controlling emotional action tendencies. Prior

work shows that testosterone facilitates FPI recruitment during emotional control in mid-adolescence, yet predicts reduced prefrontal regulation and heightened amygdala reactivity by adulthood; implying a developmental inflection around late adolescence. Consistent with the organizational–activational hypothesis, hormones like testosterone initially help shape the development and (re)-organization of emotion circuits and subsequently modulate activity within them. However, factors underlying individual differences in this trajectory remain unclear. Here we use an fMRI study examining how testosterone and pubertal maturational trajectories (DHEA profiles from ages 10 to 18) jointly shape emotional control in 18-year-olds (n=108), using the social Approach–Avoidance Task. Focusing on two key regions of interest, the FPI and amygdala, we examine whether earlier or steeper DHEA profiles are associated with the modulatory effects of testosterone on emotion control in late adolescence. Rather than examining hormone–brain associations at the group level, we ask what developmental factors drive individual variability. By contextualising testosterone within each individual's pubertal history, we aim to explain heterogeneity in adolescent emotional brain development. We will present our pre-registered analysis plan alongside preliminary findings, providing an early look at how pubertal history shapes individual differences in adolescent emotional brain development.

T9: Yasmina Rbeiz: A meta-analysis on violent versus non violent offending: In search of differential youth predictors of (young) adult offending

Despite a slight decline in overall crime in 2024, the number of high-impact crimes in the Netherlands (violent crime and other victim-intensive offences) has remained stable, posing a persistent threat to citizens' sense of safety (Statistics Netherlands & CBS, 2025). Many victims of violent crime experience severe trauma and are often diagnosed with posttraumatic stress disorder (PTSD), underlining the long-term consequences of particularly violent crime and the need for prevention (Kunst et al., 2011). Although developmental processes play a central role in predicting later criminality, no meta-analysis has examined whether youth risk factors differentially predict violent and non-violent crime in adulthood. Such a synthesis would clarify which early risk factors are most important, and identifying them is crucial for informing targeted research, prevention, and intervention to reduce the likelihood and severity of criminal behavior across the life course. To address this gap, and drawing on a well-established classification (Pollard & Lee, 2003), we will conduct three-level longitudinal meta-analyses to compare the predictive effects of multiple youth risk domains (psychological, cognitive, social, physical, and background) on (young) adult violent and non-violent offending, and examine demographic (e.g., developmental phase, gender, geographical region) and theoretically driven moderators of these associations. A meta-analytic approach is particularly suitable because it provides a quantitative, systematic overview of the differential backgrounds of violent and non-violent crime, integrates evidence scattered across psychology and criminology, and could provide answers to the classical psychological-criminological debate on potential differential predictors of violent versus general non-violent crime (Eker & Mus, 2016).

T10: Anna Hudson: **Is it a threat? Interpretation bias and belief updating in socially ambiguous situations amongst young adults with maltreatment experiences**

Background: Childhood maltreatment (CM) exposure is related to alterations in social information processing of socially ambiguous situations, including sensitivity towards threat, higher hostile attribution bias, and less flexible belief updating. Such alterations may influence everyday social behaviour such as trust, conflict resolution, initiating of new relationships, and empathy, as well as psychopathology, loneliness, and resilience. Objective: So far few studies have tested the impact of hostile attribution bias (HAB) and social belief-updating (SBU) on daily functioning in young adult survivors of CM. Using two experimental tasks, this study will investigate associations with self-reported social competence and resilience. Method: Emerging adults (with/without CM or teen dating violence exposure) will complete the Word-Sentence Association Paradigm for Hostility (WSAP-Hostility; HAB) and the emotional Bias Against Disconfirmatory Evidence task (BADE; SBU), as well as questionnaires measuring traumatic exposure, psychopathology, social skills, interpersonal trust, empathy, loneliness, and resilience. Results: Bayesian structural equational modelling will be used to investigate if 1) HAB or SBU mediate the relationship between abuse exposure and social functioning (whilst controlling for depressive, anxious, and borderline personality symptomatology), and 2) HAB/SBU and social functioning in turn predict higher trait resilience. Conclusions: Previous research shows that HAB is related to social rejection and relationship problems whilst inflexible SBU is associated with anxiety. Better understanding how HAB and inflexible SBU predict different kinds of social competence, and in turn resilience, will help in developing interventions boosting mental health in young adults.

T11: Mieke Oldeman: **Algorithm detox: A multiple-baseline study of youth ‘cleaning’ their social media feed from mental health content to improve mental health**

On popular social media platforms, such as TikTok, videos about mental health are very popular. These videos range from informational and supportive videos to videos (indirectly or directly) promoting suicide, eating disorders and self-harm. Moreover, these platforms employ recommendation-based algorithms which increase exposure to these videos once an adolescent expressed interest in this content (e.g., by liking or even long watching times). In a previous study, we have found that low to moderate exposure to mental health videos can be beneficial or neutral, while this constant exposure resulted in adolescents feeling overwhelmed and experiencing worse symptoms. Therefore, some adolescents indicated that they tried to improve their mental health by ‘cleaning’ their algorithm by swiping away, disliking or unfollowing mental health content. This way, their social media feed became more balanced and showed less mental health content. In this study, our goal is to empirically test this cleaning strategy to see if it indeed leads to improvements in mental health, daily affect and loneliness.

To do so, we will conduct a multiple baseline study with pre- and post-test measures of anxiety, depression and social media use and daily measures of affect, loneliness and social media use. We will conduct this study with ~20 adolescents and emerging adults (16-20 years old) with anxiety and depression concerns, and who regularly consume

mental health content on social media (TikTok). In this presentation, I will explain the study's theoretical underpinnings, study plan and the current status of the study.

T12: Hanches A.C., Firdaus I., Slawinski B. L., Kleiboer A., Huizink A.C. & Kaag A.M. : Gender differences in alcohol-cue reactivity - The role of childhood trauma

Background: Childhood trauma is common among individuals diagnosed with alcohol use disorder (AUD) and is associated with long-term dysregulation of stress and reward neurobiological pathways, which are also involved in motivational and attention processes related to alcohol-cues. Furthermore, women experience more childhood trauma and more frequently drink to cope with stress, consistent with documented gender differences in the effect of childhood trauma on stress and reward neural circuitry. However, laboratory studies investigating how childhood trauma and gender interact to influence alcohol-cue reactivity are unexplored. We hypothesize that higher levels of childhood trauma are associated with increased cue reactivity, including both subjective craving and physiological heart rate variability (HRV). Additionally, we expect men to show increased reactivity in reward craving, and women to show increased reactivity in relief craving. Methods: 124 participants (32 women) diagnosed with AUD and undergoing treatment were recruited from Jellinek clinics in Amsterdam. Participants completed a laboratory alcohol-cue exposure task consisting of three phases: initial guided relaxation, exposure to an alcohol imagery video, and a final guided relaxation. Subjective craving was assessed before and after the video, while HRV was continuously monitored (three phase measures were created for analysis). Linear mixed-effects models were fitted to test our hypotheses. Results: Contrary to our hypotheses, childhood trauma did not significantly predict cue reactivity. Furthermore, no gender differences were observed in this relationship. Conclusion: Our results suggest that in treatment seeking AUD patients, childhood trauma and gender do not significantly impact the motivational and attentional processes triggered by alcohol-cues.

T13: Elvis Kurtisi: What makes us clique? Comparing multiple dimensions of homophily in children's peer networks

Homophily, the tendency to form ties with similar others, is one of the strongest predictors of peer relationships in social networks. However, similarity can span multiple dimensions, from sociodemographic characteristics, such as gender and socio-economic background, to psychological and behavioral traits. Although these characteristics likely compete in shaping social networks, previous studies have typically investigated them in isolation, precluding an assessment of their relative contributions to network formation. To fill this gap, we simultaneously examined the role of eight different similarity dimensions in modulating which classmates participants nominated as 'liked': gender, socio-economic status, prosociality, aggression, shyness, cognitive inhibition, theory of mind, and verbal ability. We used Exponential Random Graph Models to characterize networks across 13 classrooms (N = 245; ages 8–12, M = 9.9; 120 girls, from 3rd primary to 1st secondary grade) and pooled the resulting estimates using multilevel meta-analyses. When analyzed simultaneously, having the same gender ($b = -1.22$, 95%

CI [-1.39, -1.04]) and sharing similar levels of prosocial behavior ($b = -0.14$, 95% CI [-0.24, -0.03]) were the only two similarity dimensions that predicted peer ties. These results suggest that, while strong gender segregation is likely during middle childhood, prosociality is the first behavioral characteristic through which similar people form connections, highlighting a tendency to form cliques of reciprocally reinforced cooperation. In light of these considerations, interventions should encourage cross-gender interactions and leverage prosocial students as catalysts for cooperative norms.

T14: Genmei Zuo: Effects of physical and mental tracing on learning and cognitive load in split-attention materials

Split-attention materials present related textual and graphical information separately, requiring learners to mentally integrate the sources of information and often imposing high cognitive load (Ayres & Sweller, 2014). Prior research suggests that tracing strategies, such as physically following information with a finger, can guide attention and support the integration of spatially separated elements (e.g., Zuo et al., 2025). However, little is known about whether different forms of tracing, including physical finger tracing, mouse-cursor tracing, and mentally imagined tracing, can effectively support learning from split-attention materials. The present study employs a between-subjects experimental design in which participants are randomly assigned to one of four conditions: finger tracing, mouse-cursor tracing, imagined tracing, or a control condition without tracing. The learning materials consist of 19 text segments and a diagram explaining the nephron, presented in a split-attention format. Data collection is currently underway with a target sample of 120 participants. Learning outcomes are assessed through measures of retention, comprehension, and subjective cognitive load. Based on Cognitive Load Theory and embodied cognition perspectives, we hypothesize that tracing strategies will improve retention and comprehension and reduce cognitive load compared with the control condition. This study contributes to research on instructional design and embodied learning by examining whether tracing strategies can facilitate learning from split-attention materials in multimedia environments.

T15: Charlotte Pas, Alexandra Hering, Yvonne Brehmer & Nicola Ballhausen: Does our body notice? Age differences in physiological responses to (un)expected prospective memory cues

To perform an action at the right moment in the future without actively monitoring, we rely on spontaneous prospective memory (SPM), which is highly relevant for remaining independent and better quality of life. Although the multiprocess theory suggests SPM performance remains preserved in ageing, evidence suggests that the sensitivity of SPM processes might diminish with increasing age (i.e., older adults use information associated with the prospective memory (PM) cue less). Previous research investigated these differences through behavioral response times. While this method provides only limited insight into the underlying mechanisms, physiological measurements could help reveal underlying orienting responses that may support noticing PM cues during SPM. In this study, we investigate possible age-related differences in the physiological orienting responses elicited by PM cues and semantically associated lures (i.e., stimuli closely

related to PM cues) compared to those elicited by an ongoing task. We examine and compare these spontaneous processes by instructing participants to respond to specific PM cues in a later block (i.e., expected PM context), while these PM cues and lures will also be shown unexpectedly in the first block (i.e., unexpected context). Data collection for 50 younger adults (18-30) and 50 older adults (65+) is ongoing using a computerized SPM task. Analyses will address age differences in SPM accuracy, reaction times to ongoing tasks, and potential physiological orienting responses of SPM, measured by cardiac inter-beat interval and skin conductance responses. This study aims to enhance our understanding of SPM and possible age-related differences in the underlying orienting responses.

T16: Lisa Levelt: Beyond single predictors: A data-driven approach to identifying psychosocial profiles linked to resilient and vulnerable developmental trajectories

Explaining individual differences in developmental trajectories is a core objective of developmental psychology. Major transitions, such as school entries, the start of therapy, or life events, often amplify these differences. While previous research has identified factors shaping adaptation during such transitions, these factors are typically examined in isolation, leaving their relative importance and joint influence unclear. This presentation demonstrates the results of using a data-driven approach to identify the most critical combinations of factors associated with distinct trajectories. Using longitudinal data from the German Socio-Economic Panel, we identified psychosocial profiles linked to life satisfaction trajectories among adults aged 65 and older facing widowhood or disability. Candidate predictors spanned multiple domains, including sociodemographic characteristics, personality, health, and social participation. The results highlighted that interactions among physical health, exercise, neuroticism, and optimism were central to shaping individual differences in adaptation to widowhood and disability. Specifically, poor health combined with low optimism increased the risk of poor adaptation, whereas low neuroticism partially buffered the negative effects of poor health. By identifying these profiles, this approach moves beyond examining single variables, offering a more integrated understanding of individual differences in developmental trajectories surrounding transitions.

T17: Laura Rodenburg: Working Together Works: Parents, schools and frontline services preventing criminal behaviour and school dropout

The main concern of parents in vulnerable neighbourhoods is that their children are unintentionally drawn into criminal activities and school dropout. These problems can be prevented more effectively than previously assumed, if we start early with integrated collaboration that tailors proven core elements in parenting, school climate and the neighbourhood. This project aims to prevent criminal behaviour and school dropout among children in vulnerable neighbourhoods. We will do this by strengthening neighbourhood-based practice: combining proven core elements of parenting, school and neighbourhood interventions in primary education and frontline services. By systematically monitoring, evaluating and improving these efforts together in local learning cycles, we aim to learn how to tailor and implement this approach in other

neighbourhoods as well. Since the project has not yet started, no results are available at this time. This poster will therefore present the project design and invite feedback on the proposed approach.

Symposium 5 (Parallel Session 12:45 – 14:15)

Symposium title: Unwrap your mind: Examining the influence of risk and resilience factors on mood and anxiety symptoms in Dutch youth

Chair: Annabel Vreeker and Crystal Smit

Symposium abstract: Mental health problems in youth are rising and there is an urgent need for effective prevention and intervention strategies. In the interdisciplinary Convergence initiative PROTECT ME, researchers and clinicians from the Erasmus University, Erasmus MC and Delft University of Technology work together with stakeholder to investigate how digital technology can be used to improve 1) early identification of mental health problems in youth, 2) decision-making of who needs which support, and 3) person-specific (preventive) interventions. In this symposium we present part of our work; Experience Sampling Method study of mood and anxiety symptoms (Vreeker); Stepwise method for Responsible Data Selection for algorithmic personalization of mHealth (De Groot); Preliminary findings from a nation-wide register study on early-life determinants of psychiatric disorders (De Zeeuw); and application of co-creation intervention mapping (Vegt).

Speaker and presenters

Unwrap your mind: Examining the influence of risk and resilience factors on mood and anxiety symptoms in Dutch youth

De Zeeuw, M.F., Scholten, H., Timme, S., Al-Hassany, L., Garcia-Gomez, P., Keijsers, L., Hillegers, M., Vreeker, A.

Background: Approximately 1 in 4 youth experiences mood or anxiety symptoms, which can have long-lasting negative consequences. While early identification of symptoms is crucial for timely intervention, it is also challenging since developmental trajectories are person-specific. Particularly, the extent to which risk and resilience factors influence (the development of) mood and anxiety symptoms differs between persons and may also depend on timing. Experience Sampling Method (ESM) studies allow for dynamic person-specific assessment of factors influencing mood and anxiety symptoms. The aim of the ongoing Unwrap Your Mind study is to examine the influence of risk and resilience factors on the development of mood and anxiety symptoms in youth from diverse contexts.

Methods: Unwrap Your Mind is a project from the Convergence PROTECT ME flagship. Over a period of 12 months, 300 participants (16–25 years) from the Rotterdam-Rijnmond region fill out questionnaires on mood and anxiety symptoms and risk and resilience factors at four time points (T0 (baseline), T1 (4 weeks), T2 (3 months), T3 (6 months) and T4 (12 months)). Between T0 and T1 participants fill out ESM questionnaires on daily affect, stress, coping and social interactions 5 times per day for 21 days. Participants are recruited through the municipalities, schools, social media and community centers.

Results: The study protocol will be presented.

Discussion: Findings from this study will hopefully help refine early identification strategies and support for mood and anxiety symptoms in youth.

Responsible data selection method for algorithmic personalization of health apps: A case study on promoting mental health

Esra Cemre Su de Groot, Ujwal Gadiraju, Olya Kudina, Loes Keijsers, Manon H. J. Hillegers, and Willem-Paul Brinkman

There is growing interest in algorithmic personalization to enhance the engagement and effectiveness of digital health technologies. However, the user input data for these algorithms may carry ethical and regulatory implications. Despite a growing amount of theoretical work, there is no practical precedent on how to consider these implications in the development of personalization algorithms. Therefore, our work proposes a stepwise method for Responsible Data Selection (ReDS) for algorithmic personalization of mHealth, which promotes an active search for ethically less risky data. We demonstrate the six-step method through a real-world use case on an mHealth app promoting adolescents' mental well-being, using a dataset of 1181 adolescents who received daily challenges based on cognitive behavioral therapy. First, we identified the personalization objective (step 1): recommending challenge types that promote adherence while ensuring a diverse set of coping strategies. We then identified adolescents' emotional state and prior completion rates as input data (step 2). Because emotional data can be sensitive and private (step 3), we explored tiredness as a potentially less risky alternative (step 4). Using simulations with reinforcement learning models (step 5), we found that prior-day completion rates alone improved personalization and that adding emotion or tiredness data yielded similar further performance gains. Balancing utility and ethical risks (step 6), we concluded that tiredness data can be used as an alternative for emotion data if risk mitigation strategies are deployed. Our work demonstrates the practical value of the ReDS method and encourages mHealth developers to integrate ethical considerations into algorithm development.

The meaningful but stubborn reality of co-creating interventions for youth wellbeing

Niko J. H. Vegt, Mathieu A. Gielen, Caroline Figueroa, Lianne P. de Vries, Esra C. S. de Groot, Milou F. de Zeeuw, Rick K. van Logchem, Mohammed Al Owayyed, Nic A. Orchard, Annabel Vreeker, Joyce Weeland

Co-creative Intervention Mapping (co-IM) is expected to enhance adoption, implementation, and effectiveness of youth mental health interventions, yet empirical support remains limited due to the ambiguity of co-creation processes. This study examined how co-creation can be integrated throughout all six steps of IM. Findings indicate that co-IM enhanced problem understanding and generated actionable design ideas, though achieving genuine co-IM demands structural shifts in power dynamics and decision-making. Implications for practice include involving stakeholders from the outset, actively addressing power imbalances, balancing theory with lived experience, clarifying participation expectations, supporting meaningful contributions, and engaging youth in defining effectiveness metrics.

Multidomain early-life determinants of mental health diagnoses in young adulthood: a nationwide register study

M.F. de Zeeuw, R.N. Gangapersad, A. Vreeker, H. Scholten, B. Dierckx, P. García-Gómez, M. Hillegers, V. Moghani

Background: Young adulthood represents a critical developmental period for the onset of psychiatric disorders. Previous studies identified a range of early-life determinants—including individual, familial, social, and environmental factors occurring before adulthood e.g., poverty—linked to later mental health outcomes. However, most studies have examined early-life determinants within single life domains, characteristics that are specific to a certain aspect of a person’s life, limiting insight into how early-life determinants across multiple life domains jointly relate to psychiatric disorders. Moreover, associations between early-life determinants and psychiatric disorders may vary across socio-economic status (SES), developmental stage and sex, highlighting the importance of stratified analyses.

Method: This nationwide administrative register study uses data from Statistics Netherlands (CBS) to examine how early-life determinants across multiple life domains relate to psychiatric diagnoses in young adulthood. We conduct a retrospective population-based cohort study including individuals born in the Netherlands between 1995 and 2003 (n = 2,677,801). Psychiatric diagnoses between ages 18 and 25 years are identified using DSM-IV classifications in CBS data. We pre-specified 58 early-life determinants across eight domains: demographics, life events/trauma, context, interpersonal, psychological, physical health, pregnancy/birth, and cognitive development/educational needs. Machine-learning models will estimate the relative contribution of determinants and domains to psychiatric disorder outcomes, with analyses stratified by SES, developmental stage and sex.

Results: Analyses are ongoing; preliminary results will be presented at VNOP.

Conclusion: Findings from this nationwide study may improve understanding of multidomain risk patterns and inform early identification and targeted prevention strategies for psychiatric disorders in youth.

Symposium 6 (Parallel Session 12:45 – 14:15)

Symposium title: Use of technology for attachment assessment in infancy, childhood, and adulthood in research and clinical settings

Chair: Kalliopi Provida

Symposium abstract: Attachment research faces persistent methodological limitations. These include small data-collection windows, costly, limited scalability, diagnostic complexity, controlled laboratory conditions, and a lack of multimodality and multidimensionality. Technological advances now offer a unique opportunity to overcome these limitations. This symposium aims to present four studies that aim to address them by attempting to integrate innovative tools in attachment research. These are measurements to assess distances between people during home-based observations, eye-tracking in clinical assessments, validation of ECG-based physiological assessments and interviews on parents' perspectives on the practical and social acceptability of novel data collection and processing methods.

Speaker and presenters

Developing a pipeline for automated extraction of infant-caregivers proximity from continuous home recording

Francesco Persico, Lianne Bakkum, Kalliopi Provida, Mirjam Oosterman, Sam Wass, Marwa Mahmoud, Frederike Scheper & Carlo Schuengel

Background: Automatically collecting and analyzing fine-grained behavioral data in naturalistic home environments offers attachment researchers a powerful opportunity to study how early attachment forms without in-person observers, reducing parents' reactivity and increasing scalability. This preliminary work examines how infant-caregiver proximity can be reliably extracted using multiple cameras and sensors. Methods: Data come from an ongoing pilot study with two-parent families (N = 15) with a firstborn aged 4–13 months participating in a flexible 3–4 day protocol involving 6–8 hours per day of automatic home-based recording, including video, audio and ultrawideband emitters (UWBE). For the present analysis, pose estimation of parents and infants was obtained using MMPose. Custom pipelines computed the temporal evolution of proximity between each parent and the infant. A five-minute interaction segment from a single family recorded simultaneously by two cameras at different angles was analyzed. The plausibility of the results was assessed by reviewing the videos. Results: Time-series data extracted from the first camera correctly detect a parent's entrance into the room and show interpersonal distances consistent with movements in the scene. However, the same interaction recorded by a second camera with substantial occlusions yielded unrealistic proximity estimates that did not accurately capture the interaction. Conclusions: Preliminary results are promising but only when camera viewpoints are optimal, highlighting the sensitivity of 2D pose-based distance estimation to viewpoint quality. Forthcoming work will combine data from multiple cameras, audio, and UWBE to

produce more reliable measurements for multimodal assessment of early parent–child interactions.

Eye-tracking measures and their diagnostic potential in trauma-, stressor, and attachment-related disorders: A scoping review

Mitchel Mesker, Deepika Bhandari, Annemieke Witte, Andres Vidal Itriago, Jan de Vries & Paula Sterkenburg

Background: Diagnostic tools and criteria to screen for childhood trauma- and stressor-related disorders (e.g., Reactive Attachment Disorder, Disinhibited Social Engagement Disorder, Acute Stress Disorder) vary considerably due to limited standardization, insufficient age-specific validation, and divergent methodological approaches. Further, early trauma responses (e.g., dissociation, hyperarousal, withdrawal) often resemble attachment-related behaviours, complicating diagnosis. Objective instruments to differentiate between disorders are therefore essential, and eye-tracking may provide a valuable avenue. This scoping review synthesizes evidence on eye-tracking as a diagnostic tool for trauma- and stressor-related disorders and its potential to support differential diagnosis. Methods: Bibliographic databases were systematically searched for empirical eye-tracking studies of participants with Reactive Attachment, Disinhibited Social Engagement, Acute Stress, or Post-Traumatic Stress Disorder. Reviewers independently screened records against predefined eligibility criteria, appraised study quality, and charted and thematically synthesized data, with discrepancies resolved through consensus. Results: Studies with individuals with Post-Traumatic Stress Disorder (n=26) reported clinically relevant sustained attentional biases; however, these did not consistently differentiate from trauma-exposed controls. Pupillometry displayed more consistent group discrimination. One study with individuals with Disinhibited Social Engagement Disorder found no differences in facial information sampling relative to healthy controls. Overall, the methodological quality was high. Conclusions: This review primarily included studies on Post-Traumatic Stress Disorder and was therefore unable to draw conclusions about the usefulness of eye-tracking for diagnostic differentiation between childhood trauma- and stressor-related disorders. Future research should incorporate multiple clinical comparison groups to determine whether eye-tracking patterns reflect disorder-specific mechanisms, shared psychopathology, or broader developmental and contextual influences.

Multi-level physiological profiling of adults during Adolescent Attachment Script Assessment: Comparing Empatica EmbracePlus and MindWare measurements

Deepika Bhandari, Mitchel Mesker, Lukas Spiess, Theodore E. A. Waters, Paula Sterkenburg & Stefania Vacaru

Background: Autonomic responding provides insight into attachment-related physiological processes. As research increasingly seeks to assess these processes beyond the laboratory, wearable devices offer a feasible means of naturalistic assessment, though their validity remains to be empirically verified. Accordingly, this study examines whether Empatica EmbracePlus converges with MindWare Mobile

Impedance Cardiograph and captures comparable response profiles. Method/Results: Adult participants (n=110) completed the Adolescent Attachment Script Assessment while physiological activity was recorded using both devices simultaneously. Physiological indicators were extracted using standardised preprocessing pipelines. Initial preprocessing indicated that the task windows derived for the two devices did not overlap. Therefore, to assess device convergence, time-series alignment via cross-correlation of interbeat intervals is planned, with Mindware-based event markers used to define epochs. Convergence will be assessed using correlation coefficients, intraclass correlation coefficients, and Bland-Altman analyses. In addition, an examination of missing data patterns will be conducted to inform the impact of signal quality and data loss on device convergence. Beyond standardised assessments, autonomic response profiles and latent class structures will also be evaluated across devices to see if comparable profiles emerge. Conclusion: Preliminary data checks indicated the need for standardised methodologies to ensure comparability of physiological measures across devices, leading to a clear, replicable data preprocessing pipeline. Given mixed findings in wearable validation studies, these analyses will guide efforts to integrate wearable technologies into attachment research and will help clarify how wearables can be used to assess complex autonomic processes in naturalistic settings.

A qualitative view on social and practical acceptability of home-based recordings and automated data processing in attachment research

Kalliopi Provida, Lianne Bakkum, Francesco Persico, Mirjam Oosterman, Alastair van Heerden, Marwa Mahmoud, Helen Minnis, Frederike Scheper & Carlo Schuengel

Background: Attachment researchers can now employ technological advances to assess, code and analyse attachment and related concepts facilitating research regarding their natural development. This study is the first step to a large data collection project which uses automatically processed, home-collected data through cameras, microphones and electrocardiographs (ECG) to understand the development of attachment patterns. The goal is to explore the social and practical acceptability of this approach from parents' perspectives via interviews. Methods: Three families with a first-born between 4-13 months participated in 6-8 hours recordings for 3-4 days. After, parents shared their experiences via 1-hour, structured online interviews, analysed with thematic analysis. Findings: Thoughts like "how does it [attachment] start?", "I am your target population!" and parents' professional interests fuelled participation. Further, the ECG device was negatively perceived as medical, while one parent almost stopped using it due to the inconvenience that caused to the baby. Moreover, a parent did not work from home due to sensitive work meetings, while parents appeared to be concerned about raising their voice to pets or their baby. Furthermore, participants described automatic data handling as funny, wondering how computers understand humans, relieving in terms of avoiding a "Big Brother type panel", or indifferent given that privacy is guaranteed. Finally, obtaining consent from third parties was not clear, resulting in postponing a visit, or asking for verbal consent. Conclusions: Despite privacy concerns and practical inconvenience, parents' curiosity and receptiveness might be able to counterbalance them, potentially supporting the overall acceptability of the study.

Teaching symposium 7 (Parallel Session 12:45 – 14:15)

Symposium title: Children, chatbots, and classrooms: Understanding the role of AI and digital technologies in learning and interaction (Round Table-Discussion)

Chair: Lisette de Jonge-Hoekstra

Symposium abstract: Artificial intelligence and digital technologies are entering children's classrooms. These developments create opportunities and challenges for teachers and children. For example, AI-driven systems such as chatbots may influence classroom dialogue and can be perceived as social actors. Furthermore, learning to work with robots and other technologies is an important skill that children need throughout the rest of their lives. At the same time, AI-generated content highlights the importance of teaching children to critically evaluate information. This round-table discussion brings together experts from complementary fields, including digital resilience (Dr Chiara de Jong and/or Prof Esther Rozendaal, Erasmus University), digital/AI literacy (Vincent Jansma, Hanze University of Applied Sciences), classroom interactions (member Expertise Centre Interactions in Diverse Classrooms, University of Groningen), and tech literacy curriculum development (Deborah Carter, NewTechKids Amsterdam). Guided by several themes, together they will discuss how digital technologies and AI influence classroom interactions and what this means for developmental psychology and educational practice. The session is will be highly interactive. Attendees can submit questions in advance (via social media), during, and at the end of the discussion. Together, we will identify research questions and strategies for supporting reflective and skilled use of AI and digital technologies in children's classrooms.

Flash Talks (Parallel Sessions 12:45 – 14:15)

F1. Topic: Adolescence

1. Judith van de Wetering: **What motivates youth to choose pro-environmentally despite personal costs? Insights from a delay discounting task**

Climate change mitigation requires swift and extensive behavioral shifts. Youth can catalyze sustainable change: they are concerned about climate change and motivated to contribute to society. However, pro-environmental behavior often comes with costs (e.g., money or time) and its effects on the environment are delayed up to decades. Such delayed outcomes may especially be a barrier for youth, who are sensitive to immediate rewards. In our study, we explore delay discounting of environmental outcomes among youth and test if discounting varies depending on framing (i.e., gain or loss) and individual characteristics. Participants (N = 238, 14-29 years, Mage = 19.5, SDage = 3.0, 57.1% female) completed an online delay discounting task and questionnaire. In the gain frame, participants were asked to choose between an immediate personal gain (receiving €2/4/6/8) or a delayed environmental gain (reforestation in 1/5/15/30/50 years). In the loss frame, participants were asked to choose between an immediate personal loss (donating €2/4/6/8) or a delayed environmental loss (sea level rise in 1/5/15/30/50 years). Preliminary findings suggest that youth discount environmental outcomes: they are less willing to forego immediate personal gain (or make personal costs) when environmental outcomes are more delayed. Youth discount to a similar extent when outcomes are framed as gains versus losses. Finally, youth discount less when they are older and experience stronger sustainability motive-alignment and responsibility for future generations. These findings suggest that an adapted delay discounting task can provide insight into the factors that motivate youth to choose pro-environmentally despite personal costs.

2. Mariëlle Osinga: **Adolescent precursors of parenting self-efficacy: Evidence from a preconception cohort**

Parenting self-efficacy – parents' beliefs in their ability to positively influence their children's development – is a key determinant of parental functioning and child well-being. Although concurrent parental, child, and contextual factors have been associated with parenting self-efficacy, its developmental origins prior to the transition to parenthood remain poorly understood. Using prospective, multiple-generation data, this study examined whether adolescent family-of-origin characteristics – including general self-efficacy, family structure, and parent-child relationship quality – predict parenting self-efficacy in emotional availability during toddlerhood. We further tested whether interparental relationship quality shortly after childbirth mediated or moderated these associations. Data were drawn from the Dutch longitudinal cohort Tracking Adolescents' Individual Lives Survey (TRAILS) and its intergenerational follow-up, TRAILS NEXT. The analytic sample included 276 parents (75% mothers) with assessments of family structure and parent-child relationships at age 16, general self-efficacy at age 19, interparental relationship quality at three months postpartum, and parenting self-efficacy when their firstborn child was approximately 30 months old. Hierarchical regression analyses showed that higher adolescent general self-efficacy predicted greater parenting self-efficacy in

emotional availability 10-15 years later. In contrast, post-separation or single-parent family structures and adolescent parent-child relationship characteristics were not directly associated with later parenting self-efficacy. Interparental relationship quality did not mediate this association, and moderation effects were not robust after correction for multiple testing. These findings suggest that general self-efficacy established in adolescence can serve as a long-term developmental precursor of later parenting self-efficacy among both mothers and fathers.

3. Johanna van Oosten: **Growing up digital: Validating a lifespan measure of digital skills for late childhood and early adolescence**

Digital competence is a cornerstone for thriving in today's technology-driven world, yet measurement tools that work across age groups are scarce. The DigIQ was developed as a lifespan measure of digital competence, but its suitability for youth under 16 remained unclear. This study tests the validity of the DigIQ among 347 Dutch youth aged 10–15 and describes their digital competence, with a focus on digital skills and knowledge. Findings indicate that the DigIQ-skills scale demonstrates acceptable structural validity, internal consistency, and measurement invariance across gender and within the 10–15 age range. The well-fitting correlated factor model suggests that, even in late childhood and early adolescence, digital competence is experienced as a set of distinct but related capacities rather than a single “tech ability.” These psychometric properties support the use of the skills scale for monitoring, evaluation, and comparisons across age and gender. In contrast, the knowledge scale showed poor structural validity, low internal consistency, and limited measurement invariance, indicating it is not suitable for assessing digital knowledge in children in its current form. Descriptively, Dutch youth aged 10–15 show substantial variability in digital skills. They perform relatively well in strategic information use and netiquette, but display weaker critical information skills, green (sustainability-related) digital skills, and AI skills, especially among 10–12-year-olds. These patterns align with developmental expectations: frequently practiced, socially reinforced skills are stronger, whereas more abstract and systems-oriented skills lag behind. Overall, the study validates the DigIQ-skills scale for youth and highlights key areas for targeted digital competence support.

4. Karo de Gieter: **Longitudinal associations between identity development and emotion regulation in young adults: Evidence from a latent change model**

Young adulthood represents an important turning point in people's lives and is often characterized by life-defining decisions such as choosing a romantic partner, making career decisions, or becoming a parent. Navigating these transitions frequently requires young adults to reflect on who they are and what they value, making identity development a central task during this period. At the same time, these decisions can be emotionally demanding, highlighting the importance of emotion regulation (ER) which also continues to develop during young adulthood. Emerging research suggests that identity development and ER may be closely intertwined. However, relatively little research has examined how identity and ER co-evolve over time, particularly using longitudinal designs. This study aimed to address this gap by examining the associations between identity and ER over time in young adults. We used a longitudinal approach

including 384 participants (Mage = 28.84 years, 55.7% female at T1) from the Flemish Study on Parenting, Personality, and Development. Latent change models were used to investigate the changes in identity and ER between T1 (27-30 years) and T2 (29-32 years). The results indicated that identity and ER changed together over time. Individuals with higher levels of exploration in depth showed decreases in maladaptive ER across the study period. Conversely, higher levels of maladaptive ER showed increases in ruminative exploration over time. These findings emphasize the interplay between identity development and ER, suggesting that both processes should be considered as interconnected components of young adults' psychological development.

5. Merel Destree: **Virtual reality for resilience - Understanding multi-problem youth's priorities in using VR to train social skills and resistance to criminal behavior, aggression, and substance abuse**

Youth with multiple problems are at increased risk of involvement in aggression, criminal behavior, and substance use. Traditional interventions do not always align with the needs and motivations of this population. Virtual Reality (VR) offers opportunities to practice social skills and resilience by reenacting realistic scenarios within a safe, controlled environment. This study examined how VR was implemented within De Nieuwe Kans, a Dutch reintegration and coaching program for multi-problem youth, as part of an existing support trajectory. The study consisted of three phases. First, a co-creation phase with youth and practitioners identified key elements of the VR trajectory. Practitioners valued VR as both an intervention tool and a basis for deeper conversations, as observed behaviors provided concrete starting points for reflection. Youth helped design scenarios, with aggression emerging as a central theme. They also indicated that the action-oriented approach would better fit the target group, which increased their enthusiasm for the VR trajectory. Second, a feasibility phase examined implementation in daily practice and highlighted the need for flexibility with this target group. These insights informed a structured five-session VR trajectory, now implemented and evaluated in the third phase. Effectiveness is currently being assessed using a pre- and post-test design to examine changes in resistance to aggression, criminal involvement, and substance use, with preliminary findings expected at the VNOP conference. By integrating co-creation, feasibility research, and effect evaluation, this project aims to develop a VR-based intervention that better addresses the needs of multi-problem youth where traditional interventions fall short.

6. Shruti Dua: **Acceptability, feasibility, and preliminary patterns of the Early Adolescent Skills for Emotions (EASE) Intervention: A mixed-methods pilot study in an international school in the Netherlands**

Adolescence is a critical developmental stage marked by heightened vulnerability to internalising problems such as anxiety and depression, with international school students facing additional stressors including mobility, cultural adjustment, and academic pressure, highlighting the need for preventive mental health support in school settings. This mixed-methods pre-post pilot study evaluated the Early Adolescent Skills for Emotions (EASE), an evidence-based group psychological preventive program (7 sessions for adolescents and 3 sessions for caregivers), in an international school in the Netherlands, examining its acceptability, feasibility, and preliminary changes in internalising problems, coping

strategies, and emotion regulation. Participants included adolescents, caregivers, and school staff. Quantitative data assessed changes in internalising problems, coping strategies, and emotion regulation, while qualitative data explored feasibility and acceptability. Results indicated high overall acceptability, with adolescents, caregivers, and staff rating the intervention as coherent and relevant, though burden particularly time constraints and facilitator workload was a consistent challenge. Adolescents reported significant increases in coping strategies, though no reductions in internalising problems were detected and mediation models showed no indications for improved emotion regulation directly post-intervention. Qualitative findings reflected implementation challenges, including shortened session length and limited training, but also highlighted strong fidelity and positive perceptions of program content. Together, these findings provide preliminary evidence that EASE is both acceptable and feasible in a high-resource, culturally heterogeneous school context. However, limitations include a small sample size, lack of a control group, and modest caregiver participation. The limitations underscore the need for replication of the study with larger, controlled trials with longer follow-up to evaluate effectiveness. Future research should refine key components (e.g., behavioural activation, caregiver engagement) and address implementation barriers to enhance EASE's preventive potential for supporting adolescent mental health.

7. Maria Andrikopoulou: **Emotional action control and affective symptoms in early adolescence**

Emotional action control – the flexible regulation of prepotent action tendencies to emotional cues is particularly relevant during adolescence. The lateral frontal pole (FPL), which undergoes maturational changes during adolescence, is crucial for controlling emotional action tendencies and has been shown to be modulated by pubertal testosterone (a physiological maturation index). Specifically, in middle adolescence, more mature adolescents (i.e., with higher testosterone levels), recruit the FPL more during emotional action control. Neural maturational differences have also been linked to internalizing and externalizing symptoms, both peaking in adolescence – internalizing to advanced maturation and externalizing to delayed, but more recently also to advanced maturation. Therefore, the testosterone modulation of FPL recruitment may underlie symptom profiles, especially early in puberty. Additionally, despite their frequent co-occurrence, internalizing and externalizing symptoms have often been investigated in isolation. We examine joint symptom associations and propose two alternative hypotheses: 1) both symptoms relate to advanced maturation (positive testosterone-FPL coupling); 2) only internalizing symptoms are related to advanced maturation; this is attenuated for externalizing symptoms. We tested this using the fMRI social Approach-Avoidance Task in 12-year-old adolescents (n=92). Externalizing symptoms significantly moderated testosterone-FPL coupling during emotional action control. Early adolescents with higher externalizing symptoms recruited the FPL during control only when testosterone was also higher; those with lower testosterone levels showed no such recruitment. Internalizing symptoms did not moderate this association. Our findings suggest a symptom-specific association with testosterone-modulated FPL recruitment during emotional action control at the start of puberty, consistent with advanced maturation in externalizing youth.

8. Simone Dobbelaar: **Neural reward sensitivity for self and others as a marker of social connectedness: an fMRI study**

Emerging adulthood marks a transitional phase in which young people often enter new peer environments and form new friendships. However, individuals may differ in the extent to which their peer environments affect their subjective feelings of social connectedness. Reward sensitivity may be one mechanism underlying these differences, as it may promote friendship formation and connections with others. This study aims to examine how individual differences in neural reward representations for self and others predict different measures of social connectedness. Additionally, we test whether neural reward sensitivity may explain individual differences in how peer environments (i.e., social network positioning) relate to feelings of social connectedness. First-year higher education students who are part of the same social network ($N_{\text{behavioral}} = 472$, 18-23 years) completed self-reported and sociometric questionnaires twice a year. A subgroup ($N_{\text{fMRI}} = 167$) also participated in an fMRI study, where they played an fMRI vicarious reward task for themselves, a best friend and distant other within their network. Social network positioning will be based on sociometric friendship nominations, whereas subjective social connectedness will be assessed through self-reported friendship quality and loneliness. We expect greater overlap in neural reward representations for self and others to be associated with higher network centrality, better friendship quality and lower loneliness. Additionally, we expect that neural reward representations moderate the relation between social network positioning and loneliness. Ultimately, this study aims to advance our understanding of how sensitivity to self and others relates to social outcomes over time.

Symposium 8 (Parallel Session 16:00 – 17:30)

Symposium title: Triangulating evidence on youth social media use: Platforms, individual differences, and interventions

Chair: Scarlett Slagter

Discussant: Amy Orben

Symposium abstract: The implications of youth smartphone and social media use are often debated, yet evidence remains fragmented and methodologically limited. This symposium proposes a more nuanced understanding of how digital environments influence youth well-being by examining who is most affected, when exposure matters, and how online content is experienced. The first study analyses differences in social media use among adolescents with mental health conditions, integrating self-reports and objective platform data. The second study uses participatory research to map youth online content exposure and its effects, highlighting inequalities and opportunities across individuals and platforms. The third study presents findings from two randomized controlled trials, testing scalable interventions to reduce habitual social media use, without compromising well-being or social inclusion. The symposium will provide a broader reflection by the discussant on the importance of method triangulation. Together, insights are delivered to inform interventions and policies supporting youth in the digital age, taking into account platform-specific effects as well as individual needs and vulnerabilities.

Speaker and presenters

Extending social media research to adolescents with mental health conditions

Luisa Fassi, Amanda Ferguson, Andrew K. Przybylski, Tamsin J. Ford, Laura Marciano, Peter Schulz & Amy Orben

Mental health conditions affect one in seven young people worldwide. At the same time, social media plays a central role in youth daily lives. Understanding its role among those facing mental health challenges is therefore of urgent clinical and societal importance. Yet, research in this area remains limited. In this presentation, I will share findings from two complementary studies that begin to close this gap and inform more effective clinical responses. First, I will present results from a registered report analysing a nationally representative UK sample to determine differences in social media use among adolescents with and without mental health conditions, as well as between internalising and externalising conditions. Unlike most prior work relying on single questionnaires, this study uses multi-informant diagnostic interviews to establish mental health diagnoses. While providing robust evidence on diagnostic differences in self-reported social media use, such measures capture adolescents' perceptions of their behaviour rather than platform engagement, such as the content viewed or posting patterns. To address this limitation, I will present preliminary findings from a study conducted in an adolescent outpatient mental health clinic, linking TikTok and Instagram data donated by adolescents to both mental health and cognitive assessments. Together, these studies are among the first to examine underrepresented clinical adolescent populations using

diagnostic assessments alongside both subjective and objective measures of social media use, providing a more precise understanding of digital behaviors in at-risk population.

Engaging youth to examine social media content across platforms and its impact on well-being

Scarlett Slagter, Esther Rozendaal & Roel Lutkenhaus

Policymakers, parents, and educators struggle to understand whether and when social media is beneficial or harmful for youth. Exposure to diverse and algorithmically curated content can differently impact adolescents' well-being, leading to both positive and negative online experiences. Socioeconomic and environmental factors lie at the root of health inequalities across youth. Nowadays, online platforms might deepen existing inequalities through algorithmic feedback loops that – for example – show higher proportions of potentially harmful media content to audiences already at risk. Our research aimed to map differences in online exposure among youth and assess how specific content affects their health. A participatory research program was developed, to give youth a voice in this understanding. Within this 7-weeks program, we explored with youth (N=180, 12-16 years) their online exposure and its impact, through guided group conversations and playful exercises. Youth also acted as co-designers to develop solutions for their own social media challenge. We present a thematic analysis of online content youth engage with (such as food, fashion, beauty, news), and present harmful content differences (such as exposing) between socio-demographic groups. Drawing from a youth perspective, relationships between content exposure and well-being are shared, next to the risks and opportunities youth experience across different platforms (e.g. TikTok, YouTube, Snapchat). This work will underscore the complex interplay between digital content exposure, social environments, and youth well-being.

Disrupting social media-habits among young smartphone users: Evidence from two randomized-controlled-trials in Denmark and Germany

David Grüning, Milana Gurbanova, Lasse Hyldig Hansen, Catrine Normann, Andreas Maaløe Jespersen, Frederik Riedel, Philipp Lorenz-Spreen, Paul Schmiedmayer & Ralph Hertwig

Adolescents report discontent with how they spent time on social media. However, scalable interventions that reduce habitual use without compromising well-being or feelings of social inclusion are scarce. We present the results of two randomized controlled trials (RCTs) conducted in the wild with young people in Denmark (N = 269) and Germany (N = 519). The RCTs tested whether introducing friction at different decision points could disrupt habitual and unintentional social media use. Participants were randomly assigned to one of three conditions, delivered via a smartphone application. In the assessment condition, users were repeatedly prompted to reflect on their reasons for using social media. In the other two conditions, brief waiting-time frictions were introduced at different decision points: either when opening a social media app or after users had specified a usage duration. After this time, they were returned to the intervention screen with a waiting time. We discuss how these friction

interventions affect users' frequency of using their social media apps, as well as the actual time spent on them. We also demonstrate how these effects differed depending on the intervention, highlighting the need for specific solutions for different social media-problems (Danish data), and how intervention acceptance and effectiveness differ between adolescents and young adults (German data). Overall, these findings demonstrate that brief, autonomy-preserving frictions can effectively disrupt habitual digital behavior, representing a scalable strategy for promoting intentional social media use. Lastly, we discuss future steps to better understand individual users and adapt intervention-designs to them.

Symposium 9 (Parallel Session 16:00 – 17:30)

Symposium title: Peer nomination data: Secure collecting methods

Chair: Toon Cillessen

Symposium abstract: Peer nominations are a reliable methodology to assess youths' peer relations. Digitalized peer nominations facilitate data collection, processing, analysis, storage, and reporting. QANS is sustainable and user-friendly open-source nominations software built on LimeSurvey. Paper 1 reviews recent advances in sociometric measurement and the scientific principles to implement in peer nomination software. Paper 2 shows how these principles and practices are built into the QANS architecture. Paper 3 illustrates the actual use of peer nomination data with QANS in longitudinal research. Paper 4 addresses how QANS handles privacy and security. The discussion includes using QANS to inform practitioners about classroom dynamics.

Speaker and presenters

Methodological requirements for peer nomination data

Toon Cillessen

Peer nomination methods are powerful tools to reliably measure the social status and social behaviors of youths and the social climate of their groups, because peers are the best informants of their own affiliations and interpersonal behaviors. Peer nominations make it possible to investigate fundamental questions about child and adolescent development and identify and help youths with behavior problems. Ever since its inception, peer nomination methodology has evolved and improved. Traditionally, sociometric and peer assessments were paper-and-pencil tests. Recently, digitalized measures outperform paper-and-pencil tests because they save time and money, increase standardization, and reduce errors. In addition to digitalization, insights have developed regarding the characteristics of the sociometric choice process, methodological best practices, and recommendations for the processing and statistical analysis of peer nomination data. These regard, among other things: (1) the type and size of the reference group (classroom, grade level, entire school); (2) whether nominations are limited or unlimited; (3) whether self-nominations are allowed; (4) whether nominations should be restricted to subsamples (e.g., same-sex peers only); (5) whether nominations should be rank ordered (e.g., for friendship); (6) whether participants can exclude members of the reference group they do not know; and (7) sociometric standardization (controlling for group size in scoring). Peer nomination software should enable researchers to make choices for these issues. This is important for the scientific quality of sociometric data, and for the development of common international standards for peer nomination data. This presentation will address the critical requirements for sociometric software based on recent insights

QANS: A software suite for large-scale longitudinal peer nomination research

Robin Richardson, Lourens Veen, Jaro Camphuijsen, & John van Hal

The digitalization of peer nomination survey data collection methods poses various challenges that are not present in classical (anonymous) self-report survey methods. In peer nomination surveys, participants have predefined group relations, and these group relations dictate what the answer options should be for the peer nomination questions for a given participant. Additionally, every selected answer option in the response to a peer nomination question has to be linked somehow to the (other) participant it represents and to their responses. The challenges become increasingly difficult if we want to perform longitudinal studies while taking the privacy of the participants seriously. If we want to have a participant-friendly survey experience and researcher-friendly data collection and processing experience, it should be relatively easy to 1) collect the required participant data with the participants' reference group relations included, 2) generate custom questionnaires for individual participants based on the other members of their reference group, 3) administer the survey in a modern user friendly interface, and 4) connect selected answer options in peer nomination responses to the reference group members they represent when processing responses.

Here, we present QANS, an open-source software suite that facilitates secure and privacy preserving online peer nomination data collection in large scale longitudinal studies. In this talk, we will walk through the full workflow, from planning the survey, obtaining the participants' personal information, administering the survey, to exporting the responses to generate reports or do custom analysis. We will also look ahead and discuss the roadmap we envision for QANS.

Use case: An illustration of QANS to study adolescent leadership

Jamie Fehribach, Sanyogita Khare, & Loes Pouwels

This paper illustrates the actual use of QANS in ongoing research. In addition to scientific findings, the experiences of researchers, participants, and teachers will be discussed, including benefits as well as pitfalls. QANS has been used to collect peer nomination data in the Kandinsky Longitudinal Study, a project designed to detect youths at risk for social and emotional problems in secondary education in The Netherlands. In the Fall of each school year, the social emotional functioning of all students in Grades 7 through 10 (i.e., the first four years of secondary education in The Netherlands) is assessed with digitalized peer nomination assessments. Each year, teachers receive classroom reports that provide detailed insight into their students' socio-emotional functioning and the social dynamics of their classrooms. Using QANS software, adolescent leadership was examined cross-sectionally and longitudinally in the cohort-sequential Kandinsky Longitudinal Study. Dutch secondary school students ($n = 3,129$; 2010-2016) responded to peer nomination items about their classmates. These nominations were used to identify four leadership types: prosocial, antisocial, mixed-behavior, and moderate. The four leader types differed in social status and social behaviors. Antisocial leaders, the most prominent group, were significantly more aggressive than moderate and prosocial leaders. Prosocial leaders were more preferred than antisocial leaders, while all leader types were more popular than average adolescents. Longitudinally, aggression in the first three years of secondary school consistently predicted more leadership nominations in Grade 10. The benefits of using QANS over traditional self-report items for the study of adolescent peer relations is discussed.

Privacy in digitalized peer nomination data collection

Jaro Camphuijsen, Lourens Veen, & Robin Richardson

GDPR, privacy regulations, security measures, and ethics committee. While we know they are there for a reason, it is sometimes tempting to see them as a burden and “just another hoop to jump through”. In peer nomination and longitudinal studies, preserving the privacy of participants can be especially challenging. In addition, the news headlines seem to suggest that the digitalization of society has destroyed privacy altogether. How can we ever obtain privacy-preserving digitalized peer nomination data collection? The QANS software suite has been designed from the start with the participants’ privacy in mind, and for good reason. As the first use case it has been implemented for is that of school children, this aspect is crucial. Given that minors are one of the core vulnerable groups in society, along with the type of data that is collected, and the scale-up in research that QANS is meant to enable, it is clear that thorough privacy preservation and data security is required. After a review of the multiple aspects of privacy, we will discuss its role in IT and in developmental science. It will become clear that privacy regulations are there for a good reason, and that it is in the obvious interest of researchers, to value the privacy of our research participants. Then, we will discuss the specific privacy issues that are present in sociometric assessments with peer nominations and longitudinal research. Finally, we present strategies that can be used to ensure privacy-by-design and how we used these to design QANS.

Symposium 10 (Parallel Session 16:00 – 17:30)

Symposium title: Socio-emotional sensitivity in adolescence: Brain development and social rejection, emotional experience, and well-being dynamics

Chair: Ivan Simpson-Kent

Discussant: Anna van Duijvenvoorde

Symposium abstract: Longitudinal approaches are essential for understanding how socio-emotional processes unfold during adolescence. This symposium brings together three presentations that apply different longitudinal methods to study adolescent development. The first talk will include research linking childhood prefrontal development to adolescent experiences of social rejection (ages 7-13). The second presentation will focus on a late-adolescent sample (ages 18-27) and address the measurement of the Experience Sampling Method (ESM), a prominent method for assessing emotions, as well as the added value of mixed-methods. The final presentation will introduce recent work using longitudinal network analysis (cross-lagged panel network models) that helps reveal relationships between academic motivation and well-being in mid-adolescence (ages 12–16) during the COVID-19 pandemic. We expect that this interdisciplinary symposium (combining expertise from neuroscience, psychological measurement, behavior, and longitudinal modeling) will not only contribute valuable insights to the field but will also help guide future advancement on studying adolescent development over time.

Speaker and presenters

Sensitive brains in social worlds: Linking childhood prefrontal development to adolescent experiences of social rejection

Michelle Achterberg, Savannah Boele, Yara J. Toenders & Robin Achterhof

Adolescence is marked by increased sensitivity to social evaluation, with experiences of social rejection occurring both offline and online. Although experimental neuroimaging studies have demonstrated large individual differences in how adolescents regulate responses to social rejection, it remains unclear how these differences translate to everyday social experiences, and how they are shaped by earlier brain development. In this study, we integrate longitudinal neuroimaging data across childhood with experience sampling data (17 days, 6 prompts a day) during adolescence to examine how developing regulatory brain systems relate to real-world sensitivity to social rejection. Using data from the Leiden Consortium on Individual Development (L-CID), we combine repeated fMRI assessments of social rejection processing between ages 7 and 13 with high-frequency ESM assessments of online and offline social rejection in adolescence. Prior work in this cohort has identified late childhood as a sensitive period for social rejection, characterized by heightened behavioral reactivity and substantial individual differences in the development of dorsolateral prefrontal cortex (DLPFC) engagement during regulation of aggressive responses. Building on these findings, we examine whether individual differences in longitudinal DLPFC development predict adolescents' moment-to-moment experiences of social rejection, affective reactivity, and regulation

in daily life. By linking developmental trajectories of prefrontal regulatory circuitry to within-person fluctuations in real-world social experiences, this work bridges laboratory-based neuroscience and adolescents' everyday social worlds. This integrative approach advances developmental models of social sensitivity and highlights the value of combining longitudinal brain development with ecological momentary assessment to identify mechanisms underlying vulnerability and resilience during adolescence.

How do people decide how they feel? A mixed-methods investigation into response processes during emotion assessment in experience sampling methods studies

Dominique Maciejewski, Leonie Cloos, Marieke Schreuder, Leonie Vogelsmeier, Yong Zhang, Niels Vanhasbroeck, Laura Bringmann & Leonie Schorrlepp

The Experience Sampling Method (ESM) is a prominent way for the assessment of emotions. However, recently concerns have been voiced regarding the validity of emotion assessments using ESM, because participants may apply different response processes during ESM. In this mixed-methods ESM study, we investigated how participants ($n=41$) decided on their numerical rating for emotions. Participants rated their emotions (5x/day; 28 days) and reflected on their rating choices in the moment using open-ended text boxes. Qualitative analyses of >4,000 open-ended responses highlight several concerning findings (>71,000 words): First, participants differed in how they came up with their responses. While some participants used some type of comparison standard to anchor their rating (e.g., past responses, own average), the majority drew on external evidence (e.g., weighing past and future events against each other) or internal processes to arrive at their ratings (e.g., listening to their gut, checking their physiological state). Second, between-person comparisons are complicated by the fact that participants have different understandings of the same scale points (e.g., although different participants say they do not feel an emotion at all, their numerical ratings vary from 0 to 4 on a 10-point VAS scale). Lastly, although ESM is supposed to capture current emotions, participants often base their rating on past and future (projected) emotions. Results cast doubt on the use of ESM emotion assessments as direct, consistent insight into participants' emotional states. Further, this talk highlights how qualitative methods can complement quantitative ESM designs, which may help strengthen conclusions about emotional processes.

Month-to-month network relationships between academic motivation and well-being in adolescence

Ivan Simpson-Kent, Lonneke Elzinga, Christel Klootwijk & Anna van Duijvenvoorde

Academic motivation and well-being are dynamic constructs that unfold across time during adolescence, yet most studies only examine these processes cross-sectionally. Moreover, the use of composite/sum scores (e.g., overall motivation) to estimate relationships between variables might obscure the discovery of intervention targets at greater levels of specificity (e.g., intrinsic and extrinsic motivation). To address this gap, the present contribution uses a novel method known as cross-lagged panel networks (CLPNs) to model associations between variables assessing stress, wellbeing, study

behavior, and academic performance during the same phase of the COVID-19 pandemic. We included a sample of 139 Dutch secondary school students (ages 12–16) who were assessed for temporal dynamics that focused on month-to-month associations between stress, wellbeing, study behavior, and academic performance variables. We investigated dynamics among these variables using CLPN models across four monthly measurement waves. Moreover, we estimated these models across three different ‘levels’ of resolution. Level 1 estimated relationships between nodes that resembled latent variables (composite/sum scores) while Level 2 and Level 3 represented increasingly differentiated subcategories of Level 1 nodes. We found that stress consistently preceded subsequent declines in wellbeing. Furthermore, when stress and well-being were differentiated into subcategories, school-related and life stress emerged as significant predictors of later wellbeing and/or academic behavior. This study demonstrates that longer-term (month-to-month) changes of academic behavior are primarily predicted by wellbeing and stress. Our results underscore the importance of considering within-subject changes when studying adolescent academic motivation and well-being.

Flash Talks (Parallel Sessions 16:00 – 17:30)

F2. Topic: Mental Health

1. Anne Miers: **By what mechanisms does a skill learning and exposure focused group intervention reduce social anxiety in pre-adolescent youth? A single-case experimental study using ecological momentary assessment**

Many young people struggle to navigate social situations with confidence and agility, affecting their social relations and mental wellbeing. This is particularly pertinent to social anxiety (SA) problems, and this type of anxiety is repeatedly shown to have the poorest treatment response. Whilst exposure therapy is effective, it is not always used by practitioners working in youth mental health care partly because they do not know which ingredients drive intervention outcomes. To address this applied research question, we conducted a single-case experimental study to examine the effect of a 4-week group intervention employing skill learning and exposure to reduce SA in pre-adolescent youth (9-12 years). We monitored emotion, cognition, and behavioral mechanisms during the intervention using ecological momentary assessment (EMA). Our intervention significantly reduced SA at post-test (T3; $p < .001$) that maintained at 3-month follow-up (T4). Linear mixed models were used to estimate individual change per mechanism as predictor of SA reduction at T3 and T4. EMA findings showed that youth showing greater increase in positive thoughts, social acceptance, self-efficacy, desire to approach situations, and expectancy change showed larger reductions in SA at T3. Longer-term reduction in SA was predicted by increased positive thoughts, desire to approach situations, social acceptance, and less nervousness in social situations (fear habituation). These results provide novel insights into mechanisms that drive SA decreases amongst pre-adolescent children. This knowledge brings us a step closer to practical applications relevant to professionals seeking to support youth with emerging social anxiety, at a crucial developmental phase.

2. Savannah Boele: **Parental overprotection going digital: Digital tracking of adolescents' school performance, location, and finances**

Digital tracking tools are now at parents' fingertips, raising concerns about infringement on adolescents' autonomy, privacy, and well-being. Despite growing concerns about parents' use of digital surveillance, empirical research beyond location tracking remains limited. Therefore, this study examined parental digital tracking across three key domains: adolescents' school performance, financial expenses, and physical location. To do so, we used multi-informant, cross-sectional data from 2024, which includes 525 Dutch parent-adolescent dyads (adolescents: $M_{age}=14.1$, range=11-18; 53% female; parents: $M_{age}=46.7$, 81% mothers). A second similar, independent sample of 2019 ($N = 175$ parent-adolescent dyads) tested replication and changes over time. The findings show that, in 2024, nearly all of the Dutch parents (99.6%) digitally tracked at least one domain. Most adolescents viewed this tracking as legitimate, though location tracking was perceived as less so. The frequency of parental digital tracking was unrelated to adolescents' well-being (e.g., anxiety symptoms, school pressure), yet positively associated with parental control- and fear-related factors, including parental overprotection, and parents' dangerous worldviews and intolerance of uncertainty. School and location tracking also increased

over the past five years, as did adolescents' perceived legitimacy of parental digital tracking. In conclusion, parental digital tracking appears a common tool for many parents today and its frequent use may reflect parental insecurities, with no clear between-family link to adolescent maladjustment.

3. Jonas Dano: **Mapping the impact of early smartphone and social media acquisition on minor: A systematic scoping review**

Background. Early access to smartphones and social media has become normative, raising concerns about the appropriate timing of first access. However, evidence on the effects of acquisition at different ages and the consequences of first access remains inconclusive. This scoping review maps how first-time smartphone and social media acquisition among minors has been defined and conceptualized, synthesizes findings on associated outcomes, and identifies research gaps and priorities. **Methods.** This preregistered scoping review followed PRISMA-ScR guidelines. We searched CMMC, PsycINFO, ERIC, and SocINDEX (November 2025), supplemented by backward and forward citation chasing and additional sources. Studies examining consequences of first smartphone or social media access, or the age or timing of such access among minors, were eligible. Fifty-eight studies met the inclusion criteria. **Results, Terminology and operationalizations** clustered into four conceptualizations: age of acquisition (age at first device or account), duration of ownership or use (length of access), ownership status (owner vs. non-owner), and recent ownership (short-term effects following first access). These conceptualizations differed in study designs and questions addressed. Across the 58 studies, 103 unique outcomes were examined in 163 associations across five domains: mental health and psychological functioning; physical health and sleep; social functioning and relationships; cognitive and educational outcomes; and digital media use. Many associations were non-significant; when effects emerged, they were more often harmful than beneficial. **Conclusions.** Research on early smartphone and social media acquisition remains conceptually fragmented and methodologically limited and does not yet support clear recommendations regarding an “ideal” age of first access. Overall, the current evidence suggests that effects are heterogeneous and often mixed, rather than uniformly harmful. Future progress requires clearer constructs, standardized measures, and longitudinal within-person designs to better inform policy and parental guidance.

4. Yentl Koopmans: **Evocative gene–environment correlations in families: How children’s genes evoke parental depressive symptoms**

Evocative gene–environment correlations occur when an individual’s genetically influenced traits elicit systematic responses from others. Within families, molecular genetic research has primarily focused on how children’s genetic liability for specific traits evokes particular parenting behaviours, which are typically studied as mediators linking children’s genetic risk to their own outcomes. Less is known about whether children’s genes also directly influence mental health outcomes in parents, such as parental depressive symptoms. Using data from 2,634 genotyped parent–offspring trios in the Millennium Cohort Study, we tested whether children’s polygenic scores for neuroticism (PGSNEU) predicted increases in parental depressive symptoms, both directly and indirectly through child emotional dysregulation. Data from both mothers and fathers were included to examine

parent-specific pathways, and analyses were conducted at offspring ages 5 and 7 to assess developmental variation in evocative effects. Results from path analyses showed that child emotional dysregulation was consistently associated with increases in parental depressive symptoms, particularly for mothers, even after accounting for parents' own genetic liability. At offspring age 5, these child-effects appeared primarily environmental. By offspring age 7, however, a genetically influenced evocative pathway emerged for mothers: higher child PGSNEU predicted increases in maternal depressive symptoms indirectly via child emotional dysregulation. Altogether, the results suggest that even within genetically informed models, modifiable child behaviours remain central to changes in parental depressive symptoms. Children's emotional dysregulation may be a promising target for interventions aimed at reducing parental depressive symptoms, especially among mothers.

5. Lisanne Schroer: **The making of a Pinocchio: Parental socialization of children's lying**

Many parents across the world lie to their children (e.g., Roza et al., 2024). However, most parents also explicitly teach their children that lying is not acceptable (Lavoie et al., 2016). The socialization pathways of parental messages and parental modeling have a strong theoretical basis but remain underexplored. We investigated these socialization pathways and potential inconsistency between the two to understand how children learn to be honest or lie through parental influences. We conducted a hypothetical vignette study in 150 7- to 13-year-olds. Parent figures gave moral messages (It is OK to lie vs. It is not OK to lie) and modelled honesty or lying to a child figure. Subsequently, children were asked if they thought child figures in the story would lie or tell the truth after receiving these socialization messages. We used antisocial vs. prosocial lie scenarios. Preliminary analyses show that the effect of parental socialization was dependent on type of lie and the particular combination of parental messages and modeling. In antisocial scenarios, children were more likely to tell antisocial lies when parents encouraged lying and modelled truth-telling compared to when they prohibited lying and modelled truth-telling (OR = 0.43, $p < .001$). Contrary to expectations, in prosocial scenarios, prohibiting lying in combination with modelling truth-telling increased child prosocial lying compared to encouraging lying and modelling truth-telling (OR = 1.58, $p = .048$). Results will be discussed in light of socialization theory, and the different moral evaluations of prosocial versus antisocial lies.

6. Jennie Lukoff: **Improving study compliance among multi-problem young adults: A personalization approach to EMA research**

Substance use and antisocial behavior peak in emerging adulthood (18–30 years), leading to challenges across interpersonal, educational, occupational, and health domains. Ecological Momentary Assessment (EMA) offers a valuable approach to capture mood and behavior fluctuations in daily life, overcoming the ecological limitations of laboratory studies. Yet, participant compliance remains a key methodological concern, as missing data and dropout threaten reliability and generalizability. Although prior work emphasizes engagement strategies in intensive longitudinal research, little is known about risk and protective factors shaping sustained engagement among emerging adults navigating the challenges that come with the formative developmental transition from adolescence to adulthood (Conner &

Mehl, 2015; Trull & Ebner-Priemer, 2020). To address these limitations, the present exploratory study employed a four-week EMA design among approximately 50 young adults (18–27 years) enrolled in a day treatment program in Rotterdam, the Netherlands. Participants completed brief smartphone surveys (2–3 minutes, 3× daily) assessing substance use (use, craving, control), aggression (provocation, control, reaction), stress, mood, and openness to support. After two weeks, participants could personalize their survey by removing or adding a question, or both. The study aims (1) to identify risk factors associated with lower EMA compliance, and (2) to evaluate whether personalization can mitigate dropout. We will examine within- and between-person predictors of compliance, including baseline characteristics measured at intake (e.g., substance use history, criminal history) and choice of personalization. Findings will inform strategies to enhance compliance in future EMA studies with multi-problem young adults.

7. Lisanne van Houtum: **The impact of emotional maltreatment on hippocampal subfield development in adolescents at familial high-Risk for severe mental illness**

Introduction: Both emotional maltreatment and having a parent with severe mental illness (SMI) are key risk factors for SMI development. In adults, both emotional maltreatment and SMI are reliably associated with smaller hippocampal volumes. In this preregistered study (<https://osf.io/rmuqt/>), we investigated the effects of emotional maltreatment on hippocampal subfield volumes and development (i.e., CA1, CA2/3, CA4/DG, subiculum, presubiculum) in adolescents with and without parents with SMI. Additionally, we explored the moderating role of parental SMI as well as the influence of having a psychiatric diagnosis.

Methods: 271 T1-weighted scans were obtained from 164 offspring (age-range: 8-22 years; 107 offspring underwent two scans) of parents diagnosed with bipolar disorder (BDo; n=68) or schizophrenia (SZo; n=47) and controls (Co; n=49) participating in the Dutch Bipolar and Schizophrenia Offspring Study. Hippocampal subfields were extracted using FreeSurfer-v7.4. Emotional maltreatment was assessed via the Childhood Trauma Questionnaire. **Results:** Using linear mixed-models, we found that SZo reported increased levels of experienced emotional maltreatment vs. both Co ($p=.003$) and BDo ($p=.010$) and had larger CA2/3 volumes (both $p's=.016$). CA1 growth was dependent on the level of emotional maltreatment (emotional maltreatment*age²-interaction: $p=.021$), whereas presubiculum baseline volume depended on having a psychiatric diagnosis ($p=.029$). **Conclusion:** Particularly SZo are prone to experiencing emotional maltreatment and show larger CA2/3 volumes compared to BDo and Co. Furthermore, experiencing emotional maltreatment may impact CA1 growth, while own psychopathology may impact presubiculum volume, irrespective of familial risk for SMI. Targeting at-risk adolescents for preventions and interventions may be crucial to optimize their outcomes.

8. Nina Chiemlowice-Szymanski: **Adolescent ADHD symptoms; Rejection sensitivity in emerging adulthood: The role of peer rejection**

Challenges experienced by youth with ADHD are often explained through neurological and cognitive differences, while little attention is paid to psychosocial factors. Among clinicians

and on social media, rejection sensitivity (RS) has received a lot of attention of the past couple of years. Youth with ADHD (symptoms) indeed experience more criticism and rejection than their peers. Although research on this topic is rooted in attachment literature focussing on the role of parents, peers are also found to play a role in development of RS. In this study, which is part of the Nijmegen Longitudinal Study, we examined among 116 young adults whether peer rejection experiences in adolescence mediated the association between previous ADHD symptoms and rejection sensitivity. ADHD symptoms were reported by at age 12. Rejection was measured in the classroom using peer nominations (Who do you like least?) at age 16. Rejection sensitivity was measured at age 20. ADHD symptoms were not significantly associated with peer rejection ($\beta = 0.21$, $p = .200$), which were also not associated with rejection sensitivity ($\beta = 0.05$, $p = .747$). There was no significant direct effect ($\beta = -0.04$, $p = .817$) or indirect effect ($\beta = -0.01$, $p = .800$) of ADHD symptoms on rejection sensitivity. As the absence of these associations likely is due to lack of power, we are currently analyzing a larger dataset. These results will be presented at VNOP.

Abstracts: Friday June 12

Symposium 11 (Parallel Session 09:30-11:00)

Symposium title: Sexual development in digital contexts

Chair: Luka Todorovic

Symposium abstract: Digital media have become a key environment for sexual development, exposing youth to online sexual content and interactions. This symposium examines how digital environments shape sexual development across adolescence and emerging adulthood using survey, multi-method, experimental, and review designs. The findings indicate that sexting is widespread and shaped by gendered sexual norms, that online norms and misogynistic beliefs contribute to non-consensual sexting, that sexualized social media content activates pornography-related urges, and that parent-child communication about pornography remains limited and challenging. Together, these findings demonstrate how sexual development emerges from the interplay of media exposure, social norms, and parental socialization.

Speaker and presenters

Sexting in adolescent romantic relationships and daily negative and positive affect: A dyadic diary study

Thao Ha, Selena I. Quiroz, Dan McNeish

Adolescent sexting has primarily been investigated from a negative lens, with studies linking sexting to adolescent mental health problems. However, adolescence is also an opportune time to experiment and learn about sexual intimacy. Sexting can be beneficial to adolescents' socioemotional development, especially when sexting occurs in romantic relationships. Therefore, we investigated how adolescent sexting in romantic relationships was associated with daily negative and positive affect. A sample of 88 adolescent couples (Mage = 16.74 years, SD = 0.90; 45% Latina/o, 45% White) participated in a biweekly daily diary study for 12 weeks and reported on sexting and positive and negative affect. Dyadic dynamic structural equation models showed that sexting was beneficial for same-day adolescents' moods. Specifically, both actor and partner effects were found in which sexting was associated with same-day higher levels of positive affect and lower levels of negative affect. However, lagged effects showed that boys sexting at t-2 was associated with partners decreased positive affect at t0. Similarly, boys sexting at t-1 was associated with their own increased negative affect at t0, while boys sexting at t-2 was associated with their partners increased negative affect at t0. The current study's findings illuminate the mixed associations between sexting and positive and negative mood within adolescent romantic relationships. We will discuss future research on sexting within adolescent relationships and potential prevention efforts.

The interplay of misogynistic beliefs and social media comments on non-consensual sexting among youth

Johanna M.F. van Oosten, A. Marthe Möller, Maud Hensums & Bella Chen

This study examined how sexual beliefs and online social norms in algorithmically shaped online environments relate to adolescents' willingness to engage in non-consensual sexting (NCS), defined as forwarding intimate images of others without their permission. We investigated whether the idea that women's refusals to sex are insincere (token refusal) and notions of male domination are associated with NCS willingness, and to what extent exposure to social media comments that support misogynistic sexual beliefs influences these associations. In addition, we exploratorily examined whether adolescents' sexual beliefs are related to the types of TikTok comments (supporting vs. opposing misogynistic content) they see. Using a multi-method design, we combined a survey with an algorithm audit. 151 Dutch adolescents (aged 13-19, 47.7% female) completed measures of sexual beliefs and self-reported willingness to engage in NCS. They then logged into their own TikTok accounts and viewed six pre-selected videos (three misogynistic, three feminist), recording the first three comments shown to them for each video. The collected comments were manually coded for misogyny or challenging misogyny. Findings indicate that token refusal, but not male domination, is positively associated with willingness to engage in NCS. We found no interaction between sexual beliefs and the type of comments shown on TikTok. However, adolescents that were presented with more comments that challenge misogyny in their TikTok accounts reported a lower willingness to engage in NCS. These results suggest that specific sexual beliefs and certain online normative cues are linked to adolescents' readiness to perpetrate NCS.

Sexualised social media content activates urges for pornography use: an experimental study with hedonic and eudaimonic cues

Luka Todorovic & Helle Larsen

Social media exposes young people to non-explicit sexualised content that may activate motivational processes that facilitate subsequent pornography use. At the same time, meaningful (eudaimonic) social media content may activate motivational states that support self-regulation and counteract the effects of sexualised (hedonic) content. These processes may be particularly relevant during adolescence and emerging adulthood, when sexual development increasingly occurs within digital environments. This experimental study therefore investigated whether sexualised social media content activates pornography urges (i.e., desire, self-efficacy, behavioural intention) and whether meaningful content attenuates these effects. Social media urges were also explored. Participants (N = 857; age M (SD) = 23.5 (7.5); 45% female) were randomly assigned to one of three customised social media exposure conditions (sexualised, combined sexualised/meaningful, and neutral). Brief two-item state measures assessed urges before and after exposure. Results indicated that exposure to sexualised content increased pornography desire and behavioural intention. Further analyses showed that meaningful content attenuated these effects among men in the sample. Problematic pornography use (PPU) significantly moderated these effects, with larger differences between conditions at higher PPU levels. Exploratory analyses indicated that women showed increases in pornography behavioural intention despite no changes in pornography desire, and meaningful content did not buffer this effect. The findings suggest that even brief exposure to non-explicit sexualised content can activate

pornography-related urges, highlighting social media as a potential cueing environment for problematic pornography use and a key context for future research and prevention.

(How) do parents communicate about pornography with their children? A global scoping review

Louise Vanmarcke, Anna Buysse, Inge Glazemakers, Koen Ponnet & Kristien Michiels

At increasingly younger ages, children and young people are confronted with pornography. Parents, among others, can play an important role in their children's pornography education. However, limited research exists on whether and how parents discuss pornography with their children. This scoping review included 53 peer-reviewed articles addressing parent-child communication about pornography. Only one quarter of the studies had this communication as their primary focus; most examined it within research on sex education, pornography use, or social media use. Reported prevalence of parent-child communication about pornography varied widely, ranging between 5.2% to 84% for parents and between 17.7% to 56% for children. When communication occurred, this was often negative, with parents warning children to avoid pornography, emphasizing its potential harm, describing it as a not true depiction of 'real sex', or banning it. Next to this risk-oriented approach, the second most common form of communication involved integrating pornography into broader sexual or media education and responding openly to children's questions. The most frequently described mediation strategies were active and restrictive mediation, alongside authoritative and authoritarian parenting styles. Several communication barriers were identified. Parents reported wanting to preserve their child's innocence, feeling uncomfortable discussing pornography, and lacking sufficient knowledge. Facilitators mentioned by parents included open family communication, a sense of moral responsibility, and children initiating the conversation. Youth reported barriers such as embarrassment and perceived parental ignorance. Youth rarely mentioned facilitators. Finally, studies highlighted young people's need for comprehensive pornography education, improved parental communication, and access to reliable information sources.

Symposium 12 (Parallel Session 09:30-11:00)

Symposium Title: A multidisciplinary perspective on the perinatal period

Chair: Caro Lemmen

Discussant: Michelle Achterberg

Abstract: The perinatal period is a highly transformative phase for parents-to-be. During pregnancy, women undergo tremendous neuroanatomical changes, related to parenting behavior. Additionally, the perinatal period is shaped by psychosocial experiences. For example, experiencing maltreatment during childhood has been linked to later parenting difficulties. These neuroanatomical and psychosocial processes unfold within a broader societal context that also shapes parenting experiences. Societal norms towards perfect parenting have put more emphasis on parenting as an individual's responsibility, potentially leading to increased parental pressure. This symposium discusses the perinatal period from a multidisciplinary perspective, drawing on insights from neuroimaging, diary studies, and historical research.

Speaker and presenters

Pregnancy renders anatomical changes in hypothalamic substructures of the human brain that relate to aspects of maternal behavior

K. Spalek, M. Straathof, L. Koyuncu, H. Grydeland, A. van der Geest, S. R. van't Hof, E. A. Crone, E. Barba-Müller, S. Carmona, D. Denys, C.K. Tamnes, S. Burke & E. Hoekzema

Animal studies have shown that pregnancy is associated with neural adaptations that promote maternal care. The hypothalamus represents a central structure of the mammalian maternal brain and hormonal priming of specific hypothalamic nuclei plays a key role in the induction and expression of maternal behavior. In humans, we have previously demonstrated that becoming a mother involves changes in grey matter anatomy, primarily in association areas of the cerebral cortex. In the current study, we investigated whether pregnancy renders anatomical changes in the hypothalamus. Using an advanced delineation technique, five hypothalamic substructures were defined in longitudinal MRI scans of 107 women extracted from two prospective pre-conception cohort studies, including 50 women who were scanned before and after pregnancy and 57 nulliparous control women scanned at a similar time interval. We showed that becoming a mother is associated with volume reductions in the anterior-superior, superior tuberal and posterior hypothalamus. In addition, these structural changes related to hormonal levels during pregnancy and specific aspects of self-reported maternal behavior in late pregnancy, including maternal-fetal attachment and nesting behavior. These findings show that pregnancy leads to changes in hypothalamic anatomy and suggest that these contribute to the development of maternal behavior in humans, supporting the conservation of key aspects of maternal brain circuitry and their role in maternal behavior across species.

Daily parenting dynamics in fathers: The role of childhood maltreatment in parenting stress, sensitivity, and coparenting

K.V.A. Ghoerbien, P.A. Bos, S. van der Asdonk, H. Spencer & R.S.M. Buisman

Introduction: Despite extensive evidence linking experienced childhood maltreatment to future negative parenting behavior and parenting difficulties (Greene et al., 2020), little is known about how experienced maltreatment manifests in the daily parenting lives of fathers. This is concerning given the important role fathers play in their children's development (Sarkadi et al., 2007). Furthermore, as parenting is inherently dynamic in nature and characterized by rapid fluctuations across contexts, understanding day-to-day dynamics in parenting constructs and their associations with experienced childhood maltreatment is important for informing targeted interventions in everyday family life.

Method: The present study uses a 7-day diary design to examine associations among important parenting constructs, namely parenting stress, parental sensitivity, and coparenting relationship quality, as well as their associations with childhood maltreatment in 80 first-time fathers with children aged up to 38 months.

Analysis: By using multilevel models and separating within-person, between-person, and lagged effects of parenting constructs, we will examine whether changes in one parenting construct on a given day are associated with changes in another construct on the same day or the following day, and whether fathers who generally report higher or lower levels of one construct differ in their overall levels of another construct. In addition, by including experienced childhood maltreatment as a moderator of the within-person associations, it is possible to examine whether childhood maltreatment moderates the strength of day-to-day associations among the parenting constructs. Preliminary results will be presented at the symposium.

Frequently asked parenting questions: A topic modeling approach to trends in parenting advice columns in Dutch periodicals, 1946-2024

C.H.C. Lemmen, F. van der Horst, R. Kok, & M. Luijk

Intensive parenting norms appear to have deepened and expanded in the 21st century, frequently resulting in parents' sense that they cannot meet societal expectations. However, how these norms have evolved from the 20th into the 21st century remains unclear. This study examines trends in these parenting norms by analyzing question and answer (Q/A) columns in Dutch periodicals published between 1946 and 2024. This historical approach aims to contextualize the contemporary complexities and pressures of parenthood. We explored general trends in parenting-related Q/A columns and constructed a corpus of 7131 texts from selected periodicals. Structural topic modeling was used to identify which themes are discussed in Q/A columns and to assess their prevalence over time. We also close read texts on toilet training, speech and language, and the "terrible twos" to analyze changes in question content and framing. We found that classic childrearing themes, such as nutrition and toilet training, were consistently discussed in Q/A columns. Second, interest in babies and toddlers increased in the 1970s alongside growing interest in child developmental stages. In the past two decades attention to older children and family structures supplanted questions on babies and toddlers. Third, parents' self-presentations changed. From the 1980s onward, parents increasingly foregrounded their own reflections, insecurities and emotional responses in

the questions. Parenting questions thus exhibit continuity and change over time. They are both intuitive and socially constructed; scientific theories and parenting ideologies inform not only the advice offered but also which questions are asked and how they are framed.

Symposium 13 (Parallel Session 09:30-11:00)

Symposium title: Parenting in daily life: Intensive longitudinal methods studying parenting across childhood

Chair: Anne Bülow

Symposium abstract: Every day of being a parent is different. Intensive longitudinal methods allow to assess these fluctuations in daily life with frequent questionnaires. This symposium integrates intensive longitudinal research about parenting across childhood: from parenting stress in parents of infants (0–4 years), to associations between self-efficacy and parenting behaviour among parents of toddlers (2–4 years), to links between parental optimism and parenting practices in families with school-aged children (10–12 years), and finally to associations between parenting and adolescent well-being (12–18 years). Together, these contributions highlight the value of intensive longitudinal methods for parenting research across all developmental stages.

Speaker and presenters

Perfect parents under pressure: An experience sampling study on parental stress and burnout in daily life

Robin Achterhof

Parenting is both beautiful and challenging. Rising societal expectations lead to increased stress for many modern parents, and for some, to parental burnout complaints. High standards, having to do it all on your own, and insecurity about “what is normal” contribute to these rising worries. In most research, the short-term, context-dependent fluctuations of daily family life are obscured. Therefore, this study examines daily manifestations and predictors of parental stress and burnout using experience sampling methodology (ESM) among parents of children aged 0–4. An estimated sample of $n=400$ parents in the Netherlands completed baseline questionnaires and three daily repeated assessments for ten days in their natural environments (end date of data collection: March 8th, 2026). Key daily-life variables include momentary burnout symptoms (exhaustion, emotional distance to children, and lack of pleasure in parenting), well-being, social support, sleep, and children’s (challenging) behaviour. In addition, evening questionnaires help provide insight into how key societal ideas (on perfectionism, individualism, and normativity) may seep into everyday life. In this contribution, both study set-up and initial results will be presented. Descriptive analyses provide insight into the feasibility of intensive data collection in high-stress parents, and in the mean levels and fluctuations of day-to-day stress and its predictors. Expected results will answer questions on the associations between parental burnout symptoms and well-being, contextual factors, and societal expectations. Together, these findings will inform early identification of parents at risk, and provide directions for prevention and support strategies that acknowledge the realities of contemporary parenting.

Momentary effects of self-efficacy on parenting behaviors: Unraveling mechanisms of behavioral change in an experimental intervention study*Susanne Schulz & Patty Leijten*

Parental self-efficacy is closely linked to parents' ability to use positive parenting strategies to manage disruptive child behavior. While parental self-efficacy has been established as an effective intervention component to reduce child disruptive behavior, how self-efficacy influences behavior remains largely unknown. This preregistered study aimed to experimentally increase parental self-efficacy to test whether subsequent affective, cognitive, or motivational processes explain how enhanced self-efficacy can help to improve parental behaviors in managing disruptive child behavior. Parents (N = 41) of 2-to 4-year-old toddlers (Mage = 33.3 months) with elevated levels of disruptive behavior participated in a multiple baseline single-case experimental design across 14 days. Multiple times per day, parents reported via a mobile app on their feelings of self-efficacy, stress (affective pathway), negative child attributions (cognitive pathway), perseverance (motivational pathway), and parenting practices (i.e., warmth and harshness) in response to disruptive child behavior. Between days 6-8, parents were randomly allocated to receive an online feedback session that aimed to increase their feelings of self-efficacy through video feedback and mastery experience. Dynamic structural equation models were used to test whether parental self-efficacy increased warmth and decreased harshness through one or several pathways (i.e., affective, cognitive, motivational). Data has been collected and will be analyzed in March 2026. The results of this study will provide insights into the affective, cognitive, and motivational pathways through which changes in self-efficacy modify parental behavior. These insights will contribute to the understanding of how and why interventions work and identify potential targets to optimize them.

Optimism and positive parenting: An ecological momentary assessment study among 105 families*Charlotte Vrijen*

A substantial body of research shows that an optimistic life orientation benefits psychological and physical well-being, academic and occupational success, and effective coping with stress. However, it remains unclear whether the advantages of optimism extend to the next generation, for example through parenting practices. The present study investigates whether parental optimism is associated with positive parenting behaviors. We address two primary questions: (1) Do parents higher in trait optimism display greater daily life warmth, autonomy support, and emotional support toward their children? (2) Do momentary fluctuations in parental optimism predict fluctuations in positive parenting in daily life? Ecological momentary assessment (EMA) data were collected from 105 families. Most families participated with one child aged 10–12 years and one parent; 50 families participated with both parents. Trait optimism was measured at baseline using the Life Orientation Test. During the EMA period (30 days, three fixed assessments/day), state optimism, parental warmth, parental autonomy support, and parental emotional support were each assessed with 2-3 items. Analyses will be conducted using multilevel Dynamic Structural Equation Modeling in Mplus to examine (1) whether parental trait optimism is associated with positive parenting

(parent- and child-reported) and parental emotional support (child-reported); and (2) whether moment-to-moment changes in parental optimism are linked to changes in parental warmth, autonomy support, and emotional support.

Data collection has been completed, and analyses are forthcoming. The presentation will focus on the findings and methodological considerations in modeling mother–child and father–child effects separately or within a single model.

Parenting adolescents, one day at a time – Syntheses of 7 years intensive longitudinal research with parents and adolescents

Anne Bülow

Adolescence can be an exciting time in one’s life, but for some, it entails decreased well-being. Parents might help adolescents navigate these challenges and improve their well-being. Past research has identified three main ingredients: warmth, autonomy support and structure. However, these “proven” parenting principles might not apply to everyday parenting in individual families. This is because of three main reasons: First, parenting principles could be based on artifacts from between-family studies. Second, parenting principles may only apply to some families. Third, the effects of parenting may depend on the timescale under investigation. In my research I, therefore, studied parenting and adolescent well-being using a family-specific intensive longitudinal approach. Over 900 participants answered more than 38,000 questionnaires (e.g., several times a day for several days) on their smartphones in their everyday lives. My findings confirmed that “proven” parenting principles also apply to everyday life and are applicable to most families. However, these parenting dynamics varied depending on the timescale and the specific family being studied. This work highlights the need for research that explicitly theorizes and tests when and for whom parenting leads to changes in well-being. Once the full complexity of these dynamics is understood, future interventions and prevention efforts can become more effective in fostering a healthy and happy new generation, one day at a time.

Symposium 14 (Parallel Session 09:30-11:00)

Symposium title: Worth the effort: Social and contextual influences on effortful behavior during adolescence and young adulthood

Chair: Elizabeth Schreuders

Symposium abstract: Adolescence and young adulthood are critical periods for the development of prosocial, environmental and academic engagement, marked by increased autonomy and sensitivity to peer contexts (Crone & Dahl, 2012). This symposium brings together three studies examining how social context, stress, and peer norms shape effortful behavior across educational and societal settings. Paper 1 synthesizes research on positive academic risk-taking and its effortful outcomes. Papers 2 and 3 focus on prosocial and pro-environmental effort. Together, these papers highlight social and contextual factors shaping effortful behavior during development, with implications for educational practice and the promotion of prosocial and sustainable engagement.

Speaker and presenters

Positive academic risk-taking in adolescence – A scoping review

Jule Schretzmeir, Ita Puusepp, Myrthe Vel Tromp, Johannes C. F. Ket, Tieme Janssen, Hilde M. Huizenga & Nienke van Atteveldt

At school, a subcategory of positive risk-taking, positive academic risk-taking (pART), refers to legal, relatively safe behaviors that adolescents can practice within educational contexts, with the potential to positively impact their learning. pART can manifest in behaviors such as concept exploration, challenge seeking, and can be influenced by factors like growth mindset, and a sense of autonomy. As a result of these effortful behaviors, adolescents may experience positive learning outcomes such as academic skill development, better self-regulation abilities, and improved well-being. However, pART is referred to with a multitude of terminologies, theoretical frameworks, definitions, and methods of investigation. A synthesizing overview of this heterogeneous body of literature has yet to be made to understand the breadth of pART behaviors, their predictors, outcomes, and impact on adolescents. The objective of this scoping review is to 1) assemble and synthesize definitions and instruments associated with, positive academic risk-taking (pART), 2) identify and map evidence of factors influencing pART, and 3) identify and present evidence for short- and long-term outcomes of pART. Using the Joanna Briggs Institute's (JBI) methodology, a protocol for this scoping review was preregistered on OSF. Subsequently, a database search was conducted which resulted in 4793 articles. We are currently halfway through the screening process (N=2228 articles screened). Data from included articles will be extracted and categorized using an open coding framework, and thematic analysis will be presented per research objective.

Deciding to try: Effort and prosocial motivation in learning contexts across development

Lonneke Elzinga, Giulia Murgia, Todd Vogel, Jo Cutler, Matthew Apps, Eveline Crone, Patricia Lockwood & Anna van Duijvenvoorde

Prosocial effort, effort that benefits others, plays a crucial role in maintaining social functioning and cohesion. Yet, under stress, effort becomes a limited resource that must be allocated across competing goals. This study examines how young people make effort-based decisions in academic-like contexts, and how these choices are shaped by stress, empathy, and whether the effort benefits oneself or others. 510 young adults repeatedly chose between rest for a low reward or varying levels of physical effort for higher rewards benefiting themselves or a peer. Perceived stress, empathy, and objective and subjective academic achievement were measured via self-report. Our results indicate participants were more willing to exert self-benefiting than prosocial effort. Further, stress was linked to reduced willingness to exert effort overall. Stress-related reductions in self-benefiting and prosocial effort were comparable at low reward magnitudes; as reward magnitude increased, however, stress disproportionately suppressed self-benefiting relative to prosocial effort. Crucially, we found that empathy may buffer against stress-related reductions in effort, but only under low to moderate stress. While no association emerged with objective GPA, greater alignment between self-benefiting and prosocial effort was linked to higher subjective academic achievement. This study provides the first evidence for the tend-and-befriend hypothesis in effortful contexts under sustained stress; prosocial effort remained relatively preserved compared to self-benefiting stress. Considering the relationship between subjective academic achievement, self-efficacy, competence and meaning, and wellbeing, these findings suggest that prosocial effort carries adaptive value not only for others but for the individual as well.

Classroom social norms and their impact on effortful pro-environmental behaviour in Adolescents

Guy A.R. Clodt, Evelien Broekhof, Kiki Zanolie, Anna van Duijvenvoorde, Lonneke Elzinga, Berna Guroğlu & Elisabeth Schreuders

Social environments play a crucial role in shaping behavior throughout development. During adolescence, when susceptibility to social influence increases, peers serve as salient social references shaping behavior and expectations. Understanding how peer norms influence adolescents' pro-environmental behavior (PEB; e.g. conserving energy, recycling, reducing waste) provides valuable insight into the social mechanism underlying PEB. As classrooms are key peer environments, classroom norms may influence PEB. Additionally, the level of classroom cohesion and an individual's degree of social susceptibility may influence the effect that classroom norms have on PEB. Two research questions are addressed: (1) What is the effect of an environmental classroom norm manipulation on effortful PEB? (2) How do classroom cohesion and peer susceptibility moderate effortful PEB? Participants are adolescents (10 –15 years) recruited from primary and secondary schools in the Netherlands. To date, data have been collected from 520 participants (185 primary; 335 secondary), with a target sample of 600. We used an effort-based experimental task in which environmental norms were manipulated to assess their effects on effortful PEB. Classroom cohesion is obtained from social network data (peer nominations) and peer susceptibility via self-report. Data collection will be completed before summer. We hypothesize that adolescents engage in more effortful PEB following positive environmental classroom norm manipulation and that this effect is stronger in classrooms with higher classroom cohesion and among individuals with higher peer susceptibility. Data will be analyzed using logistic

multilevel mixed-effects models. The findings will inform future research and practice by clarifying how peer contexts shape behavior.

Poster Sessions (12:15 – 13:15)

F1: Lorraine Denis: **Identity negotiation: Associations with self-functioning and psychopathology**

Identity development is a central task in adolescence and emerging adulthood, where individuals navigate major social and role transitions while striving to establish a coherent, socially embedded, and positive sense of self. Identity research has primarily assessed identity as a global construct (e.g., identity synthesis-confusion or identity exploration-commitment), overlooking its complexity. A more recent perspective conceptualizes identity as multifaceted and dynamic, involving negotiation of different facets across contexts (Galliher et al., 2017, 2025). To operationalize this nuance, Galliher et al. (2025) developed the Identity Negotiation Experiences and Strategies scale (INES), comprising Strain, Compartmentalization, Vigilance, and Identity Negotiation Resources, which assess how individuals experience and manage identity incompatibilities. Relating INES dimensions to established constructs of self and identity is essential to situating this novel measure within the broader identity literature. Furthermore, identity difficulties have long been linked to symptoms of depression, anxiety, and borderline personality disorder (BPD), especially in adolescents and emerging adults. Yet, little is known about how context-sensitive identity negotiation relates to these psychopathology symptoms. In a community sample of late adolescents and emerging adults (current N=500, ages 16-30), the present study investigates how INES aspects are associated with (a) established measures of self-functioning (i.e., exploration-commitment processes, self-concept/identity integration, and reflective functioning), and (b) symptoms of depression, anxiety, and BPD. Data collection is ongoing via online questionnaires. Data analyses will be completed in time. Strength and direction of associations will be interpreted in relation to hypotheses, theory, and prior research. Implications and directions for future research will be discussed.

F2: Arzu Salmanova: **Psychological interventions for first-episode, early, and chronic psychosis: A systematic review and meta-analysis of their effectiveness**

Early interventions for psychosis have increased in recent years and have shown promising results in clinical and functional outcomes. However, it remains unclear whether the effectiveness of psychological interventions differs between individuals in the early stages of psychosis and those with chronic psychosis. This study aims to conduct a systematic review and meta-analysis to evaluate whether the effectiveness of psychological interventions varies by stage of psychosis (first episode, early psychosis and chronic psychosis) and duration of illness, compared with control conditions. Systematic searches were conducted in PubMed, Embase, and PsycINFO up to 1 March 2025 (will be updated up to 1 March 2026) to identify randomized controlled trials of psychological interventions in adults (18–65 years) with schizophrenia-spectrum or related psychotic disorders. Psychosis stage variables were extracted from the included studies. When no explicit information regarding the stage of psychosis was reported, duration of illness was used to determine stage (early psychosis 5 years). First-episode psychosis was defined only when studies explicitly included participants in their first

episode. Subgroup analyses are planned to examine psychological intervention effectiveness by stage of psychosis, and a meta-regression will investigate the impact of illness duration on psychotic symptom outcomes. Post-treatment psychotic symptom outcomes will be expressed as standardized mean differences (Hedges' g) and pooled using a random-effects model. Risk of bias will be assessed using the Cochrane Risk of Bias 2 tool, and heterogeneity will be evaluated using the Q test and the I^2 statistic.

F3: Xiaohuan Li: Cross-cultural variability of the development of the Liking Gap in adolescence

After social interactions, people often like others more than they think others like them back, a phenomenon known as the liking gap. Previous research has shown that the liking gap is not only present in adults but also emerges in children around 5 years of age. However, it remains unclear whether and how the liking gap develops during adolescence, a developmental period marked by increasingly sensitivity to peer evaluation. Moreover, it is unknown whether this liking gap is limited to specific individuals after interactions (specific liking gap), or if individuals also experience liking gaps towards groups of people (general liking gap). Finally, the question remains if liking gaps can be impacted by making people aware of them prior to an interaction. In the current study we therefore studied these liking gaps (and their relationship) in Chinese and Dutch adolescents (12-17). Two unfamiliar participants performed a task together after which they were asked how much they liked their interaction partner (specific) and classmates (general), and how much they thought they liked them back. Moreover, in the experimental condition, participants read a vignette describing the liking gap, whereas in the control condition, participants read this vignette after the study was over. Although the Dutch sample is currently still being finalized, the Chinese sample (experimental condition: $N = 468$; control condition: $N = 350$) provides evidence that both liking gaps are present throughout adolescence. Surprisingly, participants in the experimental condition reported larger liking gaps than those in the control condition. These (preliminary) findings suggest that both specific and general liking gaps are present during adolescence, and that prior awareness of the liking gap may amplify, rather than reduce the liking gaps.

F4: Kevin Oostrum: The online political and news climate in adolescents' donated TikTok feeds

Adolescents often report using social media as a primary source for news, politics, and societal issues. However, little is known about what exactly they view online, to what extent they watch content about news, politics, and societal issues, and from which sources they get such content. Answering these questions could allow for interventions related to digital literacy education. Furthermore, a deeper analysis of adolescents' social media content about news, politics, and societal issues could reveal new insights on disinformation exposure and the relation with youth's democratic values. We asked Dutch adolescents ($n = 57$, ages 16-25, 46 females) to donate their TikTok data. We then extracted the text of the public videos on their feeds, which was analysed using llama 3-70b to classify the videos into different topics. This resulted in the identification of

168.762 videos about news, politics, and societal issues. We found that adolescents spent somewhat more time watching these videos compared to other topics. Furthermore, content about news, politics and societal issues from unofficial news channels featured more emotional, intolerant, and impolite language than content from official channels. These results indicate that adolescents are not necessarily uninterested in news, politics, and societal issues. However, the majority of their information ecosystem on this topic is of low quality and uses potentially harmful language.

F5: Anne Snijders: Research proposal: Online risk-taking behavior and social connectedness in adolescence

Adolescence is marked by a growing drive for exploration, often linked to increased risk-taking. In today's digital world, some risk opportunities may have shifted to online contexts such as social media, giving rise to an underexamined phenomenon: online risk-taking. Traditional, 'offline' risk-taking is related to decreased subjective perceptions of risk, and increased perceptions of benefit, but these have yet to be examined in an online context. Furthermore, feelings of social connectedness (in general, and to specific social targets) have been found to be a protective factor against adolescent offline risk-taking. Given the social saliency of the online world, social connectedness may play a pronounced role in online risk-taking behavior. Here we will examine adolescents' self-reported online risk-taking and underlying risk- and benefit-perceptions in relation to social connectedness, operationalized as a general sense of belonging and feelings of connection to specific targets (parents, peers). We aim to survey 500 participants aged 12–25 from various educational backgrounds. Participants will complete a comprehensive questionnaire (in development) covering a wide range of online risk-taking behaviors, and risk- and benefit-perceptions of these behaviors. Social connectedness will be assessed by the 8-item Sense of Belonging Scale and participants' self-reported connectedness to various social targets (e.g., parents, peers). We expect that stronger social connectedness will be associated with lower levels of online risk-taking, and differential risk and benefit perceptions. This study aims to identify how social connectedness relates to adolescents' online risk-taking and underlying perceptions, in order to help adolescents safely explore the online world.

F6: Hannah Armstrong: The anatomy of entitlement

Adolescents today are growing up in times of socioeconomic inequality. In classrooms, adolescents navigate inequality by competing for scarce resources (e.g., the teacher's attention, assistance, and accommodation). When do adolescents believe they are more entitled to these limited resources than others? Bridging psychological and sociological perspectives, we pinpointed three potential pathways to entitlement: Adolescents may feel more entitled when they feel superior to others (i.e., superiority pathway), more hardworking and smart than others (i.e., meritocracy pathway), or more invisible than others (i.e., deprivation pathway). We tested these hypotheses in a preregistered daily diary study (N = 301, 51% girls, Mage = 13.6) over 20 consecutive school days. Using Dynamic Structural Equation Modelling, we found that adolescents felt more entitled on

days they perceived themselves as more hardworking, smart, or invisible. In contrast, adolescents did not feel more entitled on days they felt superior to others. Overall, we found support for the meritocracy and deprivation pathways, but not for the superiority pathway. These findings suggest that adolescents' sense of entitlement can be influenced by both perceptions of individual merit and a sense of deprivation. Within educational environments, these findings help explain why some adolescents feel more deserving of scarce resources. More broadly, these results provide insight into how early beliefs about meritocracy and experiences of deprivation may shape perceptions of deservingness in adulthood.

F7: Ellen Neijenhuis: Balancing speed and accuracy on the Rapid Automated Naming Task in pre- and first grade children

Rapid Automated Naming (RAN) is a predictor in the development of reading skills in children.

Therefore RAN is used in practice as a diagnostic instrument to detect early signals of reading disabilities like dyslexia. RAN is most commonly used to measure the development of reading speed. However, on a RAN task children try to read as fast and as accurate as possible. While the inverse relationship between speed and accuracy (e.g. Fitts) is widely verified in perceptual and motor tasks, it has not yet received much attention in complex cognitive tasks like reading. Thus this relationship between speed and accuracy on a RAN task remains ambiguous.

This study investigates whether young children show patterns of variability with regard to speed and accuracy on a Rapid Automated Naming (RAN) task. In this study, which is part of the DoDO-project (Ten Den, in progress), a total of 38 Dutch-speaking children between the age of 5 and 6 years were asked to read a serial numerical RAN task, consisting of 160 digits of numbers between one and five. Both audio and video were recorded. We will investigate the potential trade-off between speed and accuracy during a RAN task. Furthermore variability in the speed-accuracy trade-offs will be investigated using Recurrence Quantification Analysis (RQA). These findings can deepen the understanding of how performance on a RAN-task consists of speed, accuracy, and their trade-off. This in turn could enhance the insights of RAN as a reading skills predictor in practice, beyond mere speed or errors.

F8: Qieer Sa: Profiles of online gaming motives in early adolescence: Patterns, changes over time, and links with mental health

Online gaming is inconsistently related to mental health in adolescents, and gaming motives play a significant role in differentiating these relations. However, research on the development of motivational patterns over time remains limited. This preregistered study will examine what different motivational profiles exist among early adolescent gamers, changes in these motivational profiles over time, and their associations with gaming-related factors (i.e., gaming intensity, Internet Gaming Disorder [IGD] symptoms), and mental health outcomes (i.e., depressive symptoms, loneliness, life satisfaction, and Generalized Anxiety Disorder symptoms). We will use data from the three-wave longitudinal Digital Youth and Identity project (Nwave 1 = 1,111 Dutch adolescents;

51.5% girls, Mage wave 1 = 12.8, SDage wave 1 = 0.8). We will then apply a Latent Transition Analysis to address research questions. We hypothesized to find at least three distinct motivational profiles, including a profile characterized by generally low levels of gaming motives (labelled “recreational profile”), relatively high competition motives (labelled “competitive profile”), and relatively high escape and/or coping motives (labelled “Escapist profile”). Given limited evidence, we explored different transitional patterns among all identified patterns. We hypothesized that gaming profiles characterized by multiple high gaming motives, particularly those with highest escape and/or coping motives, would be associated with poorer mental health and higher IGD symptoms. Overall, through presenting meaningful profiles and their changes over time, which may aid in clear conceptualization and personalized approaches for assessment and intervention planning for adolescents. In this poster, we will present our preregistration of the study and preliminary results.

F9: Anna Hudson: What do social cognition tasks actually measure? The role of mentalising and empathy in social skills and resilience amongst young adults with maltreatment experiences

Background: Reasoning about the thoughts and feelings of others (mentalising) and sharing in their emotions (empathy) are essential for successful social interactions. Many studies in adolescent and young adult survivors of childhood maltreatment (CM) and violence find behavioural differences compared to participants with no abuse exposure. At the same time, everyday social functioning such as conflict resolution, trust, and social connectedness are known to be altered in such populations and poorer social relationships are a risk factor for increased psychopathology and revictimisation. **Objective:** Previous literature has found CM exposure impacts mentalising task performance, but few studies elucidate exactly what this means for participants’ everyday lives. Using two experimental tasks, this study will investigate associations with self-reported social competence and resilience.

Method: Young adults will completed the Movie for the Assessment of Social Cognition (MASC) and the Multifaceted Empathy Test (MET), as well as questionnaires measuring maltreatment exposure, psychopathology, social functioning, and resilience. **Results:** Bayesian structural equational modelling will be used to investigate if relationships between abuse exposure and social functioning are mediated by MASC/MET task performance, whilst controlling for depressive, anxious, and BPD symptomatology. The model will also explore if task performance and social functioning mediate the relationship between abuse exposure and trait resilience. **Conclusions:** Greater understanding of mechanisms behind altered social functioning following CM exposure is essential for developing more precise interventions to bolster social skills in young adults. Improved social skills may help buffer against mental health problems and revictimisation.

F10: Ewa Miedzobrodzka: Inequalities in digital media use and youth development – A systematic review

This systematic review examined the long-term relationship between digital media use of children and adolescents, and their cognitive, identity, and social development. In addition, we investigated how background, individual, and social inequality factors predicted variation in media use over time, and the extent to which these inequality factors moderated the long-term relation between digital media use and youth's development. Our review was preregistered at PROSPERO (CRD42025625378). From $k = 2179$ records found in five databases, 28 longitudinal studies including over $N = 81k$ children and adolescents (age 3-18) were included for review. Regarding cognitive development, we found a negative effect of digital media use on executive functioning. Further, while we did not find a long-term link between digital media use and general identity development, digital media use predicted an increase in ill-being over time. For social development, we found mixed evidence: both negative and non-significant effects of digital media. With regard to inequalities, male gender and low socioeconomic status (SES) predicted higher digital media use among youth. Furthermore, gender moderated effects of digital media use on identity development with girls being more negatively affected than boys. Results for other inequality factors and developmental outcomes were inconsistent. In all, the current review extends literature by providing a systematic overview of various inequality factors which may play an important role in explaining which groups may be more susceptible or resilient to digital media effects on development of youth.

F11: Julia M. Rodriguez Buritica: **Observational learning in developing humans and artificial agents**

Observational learning (learning from actions and outcomes of others, short OL) is particularly relevant for the offspring of intelligent species as it allows a rapid acquisition of new behavior (without having the potential costs of individual trial-and-error learning, e.g., about potentially toxic food or using sharp tools without injuries). Furthermore, it is a way of efficiently transmitting successfully learned behavior across generations. The questions how developing individuals learn via OL are of interest across different disciplines, including psychology, cognitive neuroscience, and robotics. Merging these different perspectives helps to develop synthetic models of how others' information gets integrated during learning, which can fuel applications in robotics (e.g. in the educational sector and in HRI) and increase our understanding of OL in humans and the role of cultural evolution. In the current cross-disciplinary project we address these questions using a foraging-task in virtual reality that can be used both for behavioral experiments with developing humans and artificial agents. Here, we investigate how actions (i.e., reaching and selecting food items) and outcomes of others are integrated during learning and how these dynamics can be captured by computational models. We implement the extracted OL dynamics in artificial agents and compare OL in humans and artificial agents with different computational models. Our approach is novel and assesses observational learning in its complexity. Our findings will have general implications for understanding the mechanisms of learning from others.

F12: Stefan Vermeent: **Computational modeling of decision making enhances the adversity researcher's toolbox**

Over the past decades, there has been major progress in our understanding of how adversity influences cognitive abilities and strategies. However, most of this research is based on raw performance, such as response times and accuracy. These measures are informative about decision-making outcomes, but tell us little about cognitive processes. In this paper, we argue that adversity researchers should draw more on computational modeling of decision making. We focus on the Drift Diffusion Model, a well-established model of decision making that quantifies the efficiency of information processing, response caution, response bias, and speed of stimulus encoding and response execution. This model allows adversity researchers to gain insights into the cognitive processes associated with adversity exposure. We focus on two areas of decision making: executive functioning and explore-exploit tradeoffs. We conclude with future directions for the field.

F13: Manshi Low: Autonomy in AI-blended work contexts: Young adults not ready, but becoming

How can we support young adults in making the transition from school to AI-shaped work contexts where authority, responsibility, and decision boundaries are increasingly fluid? Most employers assume young adults are fully autonomous. Yet developmental research suggests autonomy and identity continue to be shaped well into the mid-20s. Drawing from a three-month observation of a self-governing innovation student team (ages 20–24) working together under sustained uncertainty and shifting roles, I examine autonomy-in-formation as dynamic interaction patterns: hesitation as legitimacy-scanning, distributed decision-making, informal leadership, and spontaneous peer scaffolding. These patterns reveal autonomy not as a fixed characteristic, but as a relational process co-constructed in real time. Struggle appeared less as individual developmental deficit and more as negotiation within a shared field of responsibility. This flash talk explores how young adults collectively navigate ambiguity and considers implications for educational institutions and employers preparing youth for technologically evolving work. It invites developmental science to examine autonomy not as readiness achieved, but as a process unfolding within changing technological systems.

F14: Theresa Zickert: Longitudinal associations between interparental relationship quality, parenting and parent-child relationship functioning: A meta-analysis

Supportive interparental relationships are widely recognized to be meaningful for parenting practices and parent-child relationship functioning. However, heterogeneous measurements and study designs remain, and contemporary research yields varying results concerning the strengths and directions of their associations. Thus, our meta-analysis will aggregate longitudinal evidence on the longitudinal associations between interparental relationship quality, parenting practices, and parent-child relationship quality. We currently conduct our literature search on PsycInfo, PsyArticles, and Psychology and Behavioral Sciences Collection via EBSCOhost, PubMed, and Scopus; and expect our results to be available by the time of the conference. We will include peer-reviewed literature of parents and their pre-adolescent children (i.e., aged younger

than 13). Methodological as well as sample characteristics will be included as moderators to identify sources of heterogeneous effect sizes. Risk of bias will be assessed using a modified Newcastle-Ottawa Scale. Restricting our analyses to longitudinal research, we will examine the strengths and temporal sequence of associations among interparental relationship quality, parenting practices, and parent-child relationship functioning. Our findings contribute to advancing research on antecedents and consequences of interparental relationship quality over time and tailoring interventions designed to improve familial relationship functioning and supportive parenting practices.

F15: Annika Klugmann: **Empathy in the context of sibling relationships: A meta-analysis and systematic review**

Sibling interactions offer countless opportunities to practice empathic behavior and learn about emotional expression of others. In line, various studies have examined links between sibling relationships and empathy, but there is a wide variety in methods and results differ. Aiming to provide a systematic overview of this field of research, this meta-analysis synthesizes studies and evaluates their quality. It provides overall estimates of the strength of associations between empathy and sibling status, quality of the relationship, and presence of a sibling with a disability, and explores sources of heterogeneity in effect sizes. We conducted a systematic search of four databases and found 1,180 records, of which 37 studies, published between 1987 and 2025, were included. That resulted in 118 effect sizes from 26 samples, reporting on $n = 6,665$ participants (age range: 10 months to 81 years), to be included in the quantitative analysis. Additionally, findings of nine qualitative studies with a total of 101 participants were summarized in a narrative synthesis. We detected no overall differences in empathy between only children and siblings, but did find a significant positive association between sibling relationship quality and empathy ($r = .25$), and significantly higher levels of empathy in people that have a sibling with a disability or chronic illness ($r = .10$). Generally, the field would benefit from greater methodological variety, like longitudinal and qualitative studies. Taking a more integrated approach that acknowledges the complexity of early social development is recommended.

F16: Annelie Hartmann: **Explicit and Implicit Popularity Motivations: Exploring Their Role in Bullying**

Popularity goals, i.e., the desire for social dominance and visibility, are key predictors of strategic aggression in peer groups, such as bullying (Cillessen & Marks, 2011). Recent evidence indicates that striving for high popularity, and avoiding unpopularity both contribute to aggressive behavior (Lansu & van den Berg, 2024). Because bullying often unfolds in fast-paced social contexts where deliberate reasoning is limited, these motivations may also operate implicitly (Fazio & Olson, 2014), through automatic associations linking popularity with reward and unpopularity with threat. This study examined how explicit and implicit striving for high popularity and avoiding unpopularity relate to initiating, assisting, and reinforcing bullying behaviors. We expected positive associations of both motivations with bullying at the explicit level and

explored these associations on the implicit level, as well as how they might be shaped by children's current popularity (Dawes & Xie, 2014).

Participants were 163 4th–6th graders who completed peer nominations of bully perpetrator roles (Salmivalli & Voeten, 2004), self-reported their popularity and popularity motivation (Lansu & van den Berg, 2024), and completed a popularity/unpopularity Approach-Avoidance Task. While initiating was unrelated to popularity motivations, assisting and reinforcing were positively associated with explicit striving for high popularity, and both explicit and implicit avoiding unpopularity. The association of implicit striving for popularity with bullying varied by children's current popularity: stronger implicit striving predicted more perpetration among unpopular children but less perpetration among popular children. These findings may inform intervention efforts, particularly for youth who help sustain bullying by assisting or reinforcing.

Workshops (Parallel session 13:15 – 14:15)

Workshop 1 – Thrive Track

Thrive Track – Supporting Psychology Students Through Development and Resistance

Susan van Rijen, Erasmus University Rotterdam

Most psychology or pedagogy students complete their studies during the developmental stage of young adulthood, a period often characterized by increasing independence, identity exploration, and making important decisions about the future. At the same time, many students navigate a broader context of societal uncertainty and pressures that can shape their personal development. Within this period of life, they are also preparing for a profession that places significant demands on their personal capacities and self-awareness.

Within the Bachelor Psychology Programme at Erasmus University Rotterdam, Thrive Track was developed as a three-year learning line focused on personal and professional skills. It supports students in developing self-reflection, self-management, self-directed learning, and interpersonal skills. Yet this process of growth often involves confronting challenges, vulnerability, and moments of resistance. In this workshop we explore the question: how can we best support students in navigating personal development and resistance while preparing for a profession that relies strongly on personal skills?

Workshop 2 – Youth Participation

Betekenisvolle jongerenparticipatie: stem van jongeren in beleid en onderzoek (in Dutch)

Eva Borkhuis, Lina van Drunen & Kayla Green, Erasmus University Rotterdam

Ervaar de meerwaarde van jongerenparticipatie in onderzoek en beleid. In deze workshop werk je met onderzoekers en professionals aan concrete oplossingen voor vraagstukken rond mentale gezondheid bij jeugd. Ontdek hoe samenwerking, luisteren en verbinden leiden tot beter onderbouwde inzichten en creatieve uitkomsten.

Workshop 3 – The PhD Coach Kit

The PhD Coach Kit (PhD and supervisor version)

Miranda Lutz & Tajda Laure, Erasmus University Rotterdam

Doing a PhD can be a transformative and challenging process. Issues such as publication pressure, work-life ‘balance’, and support during periods of high workload can affect well-being and stress levels. How do you and your fellow colleagues deal with these issues? During this workshop, you will have the opportunity to discuss topics related to doing a PhD with fellow PhD students or supervisors. This may be helpful in tackling these challenging experiences. You will work with the PhD Coach Toolkit, a self-coaching tool designed to support PhD students. There will be two versions of the workshop: one for PhD students and one for academic staff (at all career stages) who are currently supervising or are going to supervise PhD students.

See for more information: <https://openjournals.ugent.be/ewopinpractice/article/id/93186/>

Workshop 4 – Pedagogy in VNOP

Pedagogical science and developmental psychology share a common goal: to promote healthy development and well-being of children, adolescents and emerging adults. Whereas developmental psychology mainly focuses on individual developmental processes and mechanisms, pedagogical science focuses dominantly on contextual, relational and normative contexts in which that development takes place. It analyzes how individual development is embedded in for instance parenting, family and peer processes, educational systems and broader social structures. Integrating this expertise with the expertise from developmental psychology on individual developmental processes, may allow us to understand better how young people develop—not only examining what developmental changes in children and parents are, but also why they occur in specific worlds and social contexts. Setting up a cross-disciplinary dialogue between pedagogical science and developmental psychology may be essential, if we want to come to a richer understanding of growing up in a changing society. In this roundtable discussion, we explore the differences and commonalities between both disciplines, and explore potential vantage points for a disciplinary integration: how might this benefit the young people for whom we do our science?

Roundtable in Dutch with three discussants, who react to four statements about potential differences and commonalities between the Pedagogical Sciences and Developmental Psychology, and a general discussion about potential vantage points for an integrated developmental science in the Netherlands.

Symposium 15 (Parallel Session 14:15-15:45)

Symposium title: How socializing agents shape adolescents' social media use

Chair: Lowie Bradt

Symposium abstract: Social media use (SMU) is deeply embedded in adolescents' daily lives. This symposium examines how socializing agents shape adolescents' SMU outcomes. An integrative conceptual framework distinguishes between media-specific practices, general parenting, and modeling as sources of parental influence, each foregrounded by one of two subsequent empirical studies. A fourth contribution extends these principles to the school context, investigating how smartphone policy stringency and teachers' need-support interactively relate to students' behavior. Together, the contributions highlight the diverse ways in which socializing figures can shape adolescents' SMU and the need to study these within a broad, integrative framework.

Speaker and presenters

An integrative model of parental influences on adolescent social media use

Lowie Bradt, Marlies Van de Castele, Tessa Van Gucht, Koen Ponnet, Matteo Giletta & Bart Soenens

Social media use (SMU) has become a big part of adolescents' daily lives, raising concerns among parents and policymakers about its potential implications for development. In response, a growing body of research has examined parents as key socializing agents who may shape the conditions under which SMU is associated with risks or benefits. However, this emerging field remains fragmented, with different research lines developing largely in isolation and without a shared theoretical foundation. In particular, studies on media-specific parenting have often used inconsistent operationalization and progressed separately from work on broader parenting dimensions such as general parenting style and family climate and parental modeling of media behavior. Moreover, evidence regarding the effectiveness of media-specific practices is mixed, suggesting that a narrow focus on these possibly superficial media-specific regulation strategies provides only a partial account of parental influence. The present contribution addresses these limitations by proposing an integrative conceptual framework that situates media-specific parenting practices within a broader parenting context. The framework distinguishes between the degree and style of several media-specific practices, general parenting style and family climate, and parental modeling of media behavior as conceptually distinct yet interrelated sources of influence on adolescents' SMU. By also allowing for the examination of interactions among these dimensions, the framework offers a more comprehensive and theoretically grounded perspective on how parents shape adolescents' SMU and its impact. In doing so, it aims to clarify key concepts, organize existing evidence, and provide a coherent foundation for future research in a continuously evolving digital landscape.

Understanding parental influences on adolescent social media use: The role of attitudes, restrictive mediation, and parental social media use

Tessa Van Gucht, Lowie Bradt, Marlies Van de Castele, Koen Ponnet, Matteo Giletta & Bart Soenens

In early adolescence, social media use (SMU) begins to gain importance, bringing both opportunities and risks. Parents, as key socialization agents, face the complicated task of regulating their adolescent's SMU. One frequently adopted strategy involves restrictive media-specific practices, such as imposing rules on permitted apps and screen time. Beyond these explicit practices, parents also influence their adolescents' SMU more subtly through their own media behavior (i.e., modeling). Although research has documented some effects of parental modeling and restrictive mediation, less is known about what drives these parenting behaviors. We argue that parental attitudes represent a key antecedent. Specifically, we hypothesize that parents' general attitudes toward technology, whereas their attitudes toward social media use in adolescence shape both the degree and the style (controlling vs. autonomy-supportive) of their restrictive mediation practices. These parental factors, in turn, are expected to influence their adolescents' SMU. Using structural equation modelling, these pathways were tested among parent-adolescent dyads (N=156, adolescents' mean age = 10.93 years, 63.58% girls). Overall, parents with more negative attitudes toward adolescent's SMU reported using more restrictive practices and indicated to apply them in a more controlling manner. In turn, the degree of restrictive mediation was negatively related to adolescent's self-reported problematic social media use, while controlling restrictive practices were positively related to adolescent's problematic SMU. Regarding parental usage of social media, parents' time spent on social media was positively related to their adolescents' problematic SMU. Avenues for future research will be discussed.

How parenting shapes adolescents' identity development and social media use: The role of intrinsic and extrinsic life aspirations and implications for mental health

Sam Houthuys, Peter Prinzie & Bart Soenens

Social media play a central role in how today's adolescents connect, explore, and express who they are. Whereas social media is often blamed for contributing to mental health problems, empirical evidence is mixed. This study moves beyond an alarmist perspective by recognizing social media as a developmental context with both benefits and risks. Through SEM analyses, we examined the role of intrinsic aspirations (personal growth, affiliation, community, and health) and extrinsic aspirations (i.e., wealth, image, and status) in identity development and social media use. Additionally, we investigated whether need-supportive and need-thwarting parenting predict adolescents' aspirations and subsequent identity development and social media use. Wave 1 of a three-wave longitudinal study involved 144 adolescents from the 12th grade of Flemish secondary education (58% girls, Mage = 16.96). Intrinsic aspirations related positively to adaptive identity processes (i.e., exploration in breadth, exploration in depth, and identification with commitment) and negatively to social media use frequency. Extrinsic aspirations related to inauthentic self-presentation, ability-focused social comparison, and need-frustration on social media. Furthermore, indirect effects indicated that need-supportive parenting related to adaptive identity processes via adolescents' intrinsic aspirations. In

contrast, need-thwarting parenting correlated positively with maladaptive social media use, social media rumination, and inauthentic self-presentation, ability-focused social comparison, and need-frustration on social media. Mental health outcomes were also assessed. Longitudinal analyses examining how aspirations, identity processes, and social media use relate to mental health are currently ongoing. Overall, findings highlight the importance of the parenting climate and adolescents' aspirations for identity development and social media use.

The what, how, and why of school smartphone policies: Policy stringency, communication styles, and motivational pathways

Marlies Van de Castele, Lowie Bradt, Bart Soenens, Koen Ponnet & Maarten Vansteenkiste

Adolescents spend a substantial amount of time on their smartphones during school hours, often on social media apps, even in schools where strict policies are in place. This raises the question under which conditions such rules can be effectively implemented. Accordingly, the present study examines how the strictness of smartphone policies in schools (the “what”) and teachers’ communication styles regarding these smartphone rules (the “how”) relate to students’ motivation to comply with these rules (the “why”), as well as to their self-reported adherence and smartphone regulation beyond school. The sample consisted of 3786 secondary school students ($M_{age} = 14.66$ years, $SD = 1.74$; 48% male, 51% female) from 17 schools spanning Grades 7 to 12. Results from regression and mediation analyses with robust cluster corrections indicated that policy stringency showed only modest associations with the outcomes. Specifically, students reported lower amotivation, higher identified motivation, and greater adherence in schools where smartphones were stored in cabins or lockers during class, compared to schools where students kept their phone with them or where rules varied by age. In contrast, students’ perceptions of teacher communication styles displayed more consistent relations: need-supportive communication was associated with greater internalization of the rules and lower amotivation, which in turn was associated with more compliance and lower smartphone use beyond school, whereas chaotic and controlling communication showed less favorable patterns. The findings highlight conditions for effective implementation that may shape broader outcomes in the smartphone ban debate, such as well-being and academic performance.

Symposium 16 (Parallel Sessions 14:15-15:45)

Symposium title: Youth mental health in a today's society: Insights from the Dutch Generation R cohort

Chair: Pauline Jansen

Symposium abstract: Youth mental health is under growing pressure as young people navigate rapid social change, global uncertainties, and increasingly demanding environments. This symposium offers insight into the mental health of youth in today's Dutch society and highlights emerging topics of relevance for young people. Drawing on research from Generation R, a large population-based cohort in Rotterdam, the presentations provide an overview of current trends in youth well-being and critical themes ranging from hormone-related issues to problematic risky behaviors. Together, these presentations show how longitudinal observational cohort data can deepen our understanding of mental vulnerabilities among young people and help inform more effective support systems.

Speaker and presenters

Mental health in the Dutch Generation Z: A population-based study of diagnostic prevalence, multimorbidity and service use

L.L. van der Gun, D. van der Waal, S. Defina, H. El Marroun, M.H.J. Hillegers, W. Jansen, P.W. Jansen, K. Bolhuis

Background: The rise in youth mental health problems is a growing concern globally. Population-based studies with standardized diagnostic criteria are crucial to assess the scope of the youth mental health crisis and to identify high-risk groups.

Methods: We assessed diagnostic prevalence, multimorbidity, and service use among adolescents aged 16–20 years ($n \approx 3,500$) from the multi-ethnic, population-based Generation R birth cohort in Rotterdam, the Netherlands. Present (P) and lifetime (LT) DSM-5 disorders were assessed between October 2020 and September 2024 using the Kiddie Schedule for Affective Disorders and Schizophrenia for School Age Children Present and Lifetime Version (K-SADS-PL). Mental health service use was assessed in face-to-face interviews.

Results: Preliminary analyses ($n = 3,007$) reveal high prevalences (%) of any disorder, problematic substance use (P: 20.0), self-harm (LT: 13.3) and suicidality (LT: 8.4). Depressive (P: 13.2, LT: 19.3), anxiety (P: 6.5, LT: 16.3), substance use (P: 3.3) and eating disorders (P: 1.6, LT: 4.6) were most prevalent. Multimorbidity was common; depression often co-occurred with anxiety (29%) and eating disorders (16%), and suicidality (45%). Overall, mental health conditions were more prevalent in girls and in adolescents with a non-Western migration background.

Conclusions: Mental disorders are highly prevalent in late adolescents and frequently co-occur. These findings underscore the need for better prevention measures, early detection, and equitable mental health service provision for adolescents.

Association of menarche with menstrual and mental health of adolescents

L. Al-Hassany, C.A. Enthoven, A. Kamperman, B.F.P. Broekman, M. Hillegers, D. Lu, Y.V. Louwers, A. Mulders, P.W. Jansen, K. Bolhuis

Background: Menstruation is a natural physiological process experienced by women, whom are half of the world population. Yet the topic remains shrouded in societal stigma and silence, even among healthcare providers and researchers, while hormonal changes can affect a person's wellbeing from an early age onwards. Our aim is to assess the association of timing of menarche with the development of overall and menstruation-related mental health outcomes in adolescents.

Methods: Data from the Generation R Study was used, a large prospective population-based birth cohort in Rotterdam. Information on the menstrual cycle and mental health was obtained through self-reports among 2328 14- and 18 years-olds. Multivariate linear regression with natural splines were run.

Results: The mean age at menarche in this sample was 12.87 years (SD 1.39). Of the total sample, 21.6% women experienced early menarche (n = 504), 58.1 % had timely menarche (n = 1353) and 20.2% experienced late menarche (n=471). Small, yet statistically significant results showed that a higher age at menarche was associated with lower total mental problems and less premenstrual health symptoms (B=-1.32 [95% Confidence Interval (CI) -2.50, -0.14] and -0.29 [95% CI -0.43, -0.15], respectively). At the conference, we will also present findings on premenstrual symptoms and the use of hormonal contraception.

Conclusions: These results will be crucial for further research identifying adolescents at risk, but also for informing preventive and clinical strategies that consider pubertal timing as a meaningful biopsychosocial marker.

Patterns of adolescent risk-taking: Co-occurrence and psychosocial predictors of substance use, gambling, and antisocial behaviors

D. Ultanir, M. Boffo, H. El Marroun, I.H.A. Franken, & R. Marhe

Background: Adolescence is marked by increased engagement in risk behaviors, including substance use, gambling, and antisocial behaviors. These behaviors frequently co-occur, likely driven by shared etiological factors. Despite high prevalence rates, prior research has largely treated adolescent risk-taking as a uniform construct, overlooking heterogeneity among these co-occurring behaviors. Person-centered approaches enable the identification of distinct risk behavior profiles, providing insights beyond traditional variable-centered and one-size-fits-all approaches.

Methods: We implemented Latent Class Analysis (LCA) to identify subgroups of adolescents with distinct risk-taking patterns. Data were drawn from the Generation R cohort, a population-based longitudinal study in the Netherlands (N ~3,000). Risk behavior indicators were assessed with self-report questionnaires at age 18, including current alcohol, tobacco, and cannabis use, past-year gambling, lifetime criminal record, and past-year rule-breaking behavior. Further, we examined associations between class membership and sociodemographic, familial, childhood trauma, and psychological predictors of risk-taking.

Preliminary Results: A two-class solution best fit the data: (1) a multi-problem high-risk group (24.7%), characterized by elevated probabilities across all risk behaviors; and (2) a normative risk-taking group (75.3%), displaying low-to-moderate probabilities of risk-taking. Male sex, parental history of criminality, and higher levels of childhood trauma as well as externalizing symptomology were associated with increased likelihood of belonging to the multi-problem high-risk class.

Conclusions: Adolescent risk behaviors cluster into a generalized high-risk profile, characterized by shared underlying vulnerabilities. Identifying distinct developmental risk profiles may improve early detection of at-risk adolescents and guide tailored prevention strategies.

Childhood predictors of internet-use problems and gaming problems in adolescence

S.C. van Ham, M.C. Lutz, S. Defina, & H. El Marroun

Background: Problematic internet use (PIU) is characterized by impaired control over one's internet use, resulting in significant distress or functional impairment in daily life. PIU encompasses various online activities, including gaming and social media use. Early life experiences may increase the risk of developing PIU. This study examined childhood predictors of adolescent internet-use and gaming problems.

Methods: Data from 2500 adolescents participating in the Generation R Study was used. Adolescent internet-use and gaming problems (age 18) were assessed using 8-item versions of the Internet Addiction Test. Predictors were assessed in early (ages 4-5; 25 predictors) and late childhood (ages 8-10; 37 predictors), and included child characteristics, family factors and screen-use variables. Four machine learning models were compared to determine the appropriate model for our analysis: LASSO, Ridge, Elastic Net, and Extreme Gradient Boosting. The first three are penalized regression models performing variable selection/shrinkage. Gradient Boosting was included to explore non-linear relationships. The best-performing model per outcome was selected based on RMSE/R, and predictor importance was compared across models.

Results: Models were trained on ~1300 (gaming problems) and ~2000 (internet-use problems) participants. Preliminary results indicate shared and distinct predictors, with emotional and behavioral problems, self-esteem and family factors common to both outcomes. Male gender, temperament and screentime uniquely predicted gaming problems, while female gender, executive functioning and social factors uniquely predicted internet-use problems. Final results and model evaluations will be presented at the congress.

Conclusions: Preliminary findings indicate outcome-specific differences in early life predictors of internet-use and gaming problems

Symposium 17 (Parallel Session 14:15-15:45)

Symposium title: Youth perspectives on emotional disclosure and regulation in everyday life

Chair: Loes Janssen

Discussant: Dominique Maciejewski

Symposium abstract: Adolescence is marked by increasing emotional complexity and autonomy. How young people disclose distress and regulate emotions in daily life is crucial for their mental health, yet youth perspectives remain underrepresented. This symposium integrates three studies centering youth voices. A mixed methods-study explores adolescents' disclosure of distressing topics across confidants and identifies facilitators and barriers. One study evaluates open-ended ecological momentary assessments (EMA) to capture early adolescents' use of emotion regulation strategies in daily life. Another EMA study identifies youth-generated regulation strategies through co-creation. Together, these studies showcase different approaches to examining emotion expression and regulation in daily life.

Speaker and presenters

Facilitators and barriers of adolescent self-disclosure across different confidants

Kullberg, M-L. K., Keijsers, L., Elzinga, B., & Janssen L.H.C.

Adolescents navigate a period of biological, emotional, and social changes that can increase vulnerability to emotional distress. One important strategy for managing everyday difficulties is to seek social support, which requires self-disclosure – the sharing of personal or sensitive thoughts, feelings, and experiences with others. Adolescent self-disclosure is essential for relationship building, receiving support and mental well-being. However, little is known about whom adolescents confide in and what factors facilitate or hinder this process. In this mixed methods multi-informant study, twelve Dutch adolescents (Mage = 18.3, 66.6% girls) and their parents (11 fathers, 12 mothers) were interviewed. Inspired by Q-methodology, adolescents placed color-coded cards on a grid to indicate whether they discussed 16 potentially distressing topics (e.g., mental health, school problems, physical complaints, family issues) with 17 persons (five relationship categories: caregivers, peers, professionals, familiar adults and others). Quantitative results show that adolescents disclosed most to caregivers (especially mothers) and least to familiar adults, such as teachers. Semi-structured interviews with adolescents and their parents were analyzed using inductive reflexive thematic analysis. Qualitative analyses revealed that warm relationships and concrete opportunities to talk facilitated self-disclosure. Two important barriers were emotional distance and privacy concerns. Parents mentioned the dilemma of autonomy relatedness: approaching the adolescent versus giving space for the child to reach out for support. Thus, under the right conditions, adolescents appear to be willing to share distressing topics, but familiar adults may need to be more active in creating opportunities for disclosure by making time, offering space, and initiating conversations.

Youth perspectives on emotion regulation in daily life: Beyond strategy labels*van Roekel, E, Duman, I., Schorlepp, L., & Schreuder, M.*

Emotion regulation research and measurement has historically focused on abstract, researcher-defined strategies (e.g., distraction, reappraisal, suppression). Recent theoretical work highlights the need to distinguish such strategies from the concrete tactics through which regulation is enacted in daily contexts (Petrova & Gross, 2023). However, little is known about how adolescents conceptualize and implement ER in everyday life. We therefore used a participatory approach to develop a youth-informed taxonomy of regulation tactics and strategies, with the aim to develop an ecologically valid experience sampling (ESM) measure. Six focus groups were conducted with youth (N = 29; ages 16–24; M_{age} = 19.57; 36% male). Participants discussed commonly experienced emotions, how they regulate these emotions, and responded to three vignettes depicting real-life emotional situations (e.g., school stress, sports success). Transcripts were thematically coded into regulation categories, and co-occurrence patterns between emotions and reported strategies were examined. Coding yielded 28 regulation categories, spanning emotion-focused (e.g., sharing, distracting) and situation-focused (e.g., disengaging, reappraising) approaches. Adolescents predominantly described concrete, situational behaviors (i.e., tactics; e.g., “going to my room”) or blends of tactics and strategies, rather than abstract strategy labels. Several frequently reported tactics did not map onto dominant ER categories, indicating a mismatch between standard measures and youths’ lived experiences. Findings support a shift toward tactic-sensitive assessment of adolescent ER. Grounding measurement in youth-generated, context-specific behaviors may improve ecological validity and inform more personalized approaches to studying and supporting emotion regulation in daily life.

Evaluating open-ended EMA items on emotion regulation for early adolescents*Vrijen, C.*

As part of a broader study on optimism in the daily lives of families, we examine its association with emotion regulation skills in parents and children. We used open-ended responses to assess emotion regulation to allow children and parents to describe daily positive and negative experiences and their responses in their own words, while also providing contextual information. Such context is critical giving growing evidence that the adaptiveness of specific emotion regulation strategies depends on situational factors rather than being inherently good or bad. Another benefit of our open-ended responses is that participants were not forced to respond to closed questions about specific strategies they may not relate to. The aim of the present study is to code the responses of the children and evaluate how informative they are in terms of (1) providing an understanding of the intensity of the emotions that accompanied their most positive and most negative experience of the day; (2) the specific emotion regulation strategies they used; (3) the specific (social) context in which the strategies were applied; and (4) the adaptiveness of the strategy in the specific context. Ecological momentary assessments (EMA) were collected three times per day for 30 days from 128 early adolescents (age 10-12). The open-ended items were assessed once per day in the evening and could be typed or audio-recorded. The study started with elaborate instructions during a home visit or online meeting. Coding is ongoing and results will be discussed during the presentation.

Flash Talks (Parallel Sessions 14:15-15:45)

Topic: Inequalities

17. Lena-Emilia Schenker: **Does teachers' comfort make low-SES students seem less smart?**

Can teachers' comforting feedback following a student's failure make children from low socioeconomic status (SES) backgrounds appear less smart? In Study 1, teachers (N = 146, ages 19-82, 84% female) read vignettes describing children from a high- or low-SES background experiencing a failure in school. When a child from a low-SES (vs. high-SES) background failed, teachers were more likely to comfort them for low ability (e.g., "Not everyone has to be good at math", $p = .009$), and assigned easier follow-up tasks ($p < .001$). Why? Perhaps because they believed that the student lacked the ability to improve ($p < .001$). In Studies 2 (N = 180) and 3 (N = 284), children (ages 7-12) watched videos in which two students failed a test, with only one receiving comfort-oriented feedback from the teacher (Figure 1). When a student received (vs. did not receive) comfort or was assigned easier follow-up tasks, children perceived this student as less good at the subject, less smart, and less likely to have the best future job ($ps < .001$). The results suggest that teachers are more likely to comfort low-SES students for perceived lack of ability and to adopt 'kind' but unproductive strategies, such as assigning easier follow-up tasks. These well-intended reactions may signal low ability to peers. Together, the findings identify comfort-oriented teacher feedback as a potential mechanism in the formation of stereotypes about low-SES children's abilities and the perpetuation of achievement inequality. Understanding when feedback backfires can help teachers support children's confidence over time.

18. Ouissam Abbatouy: **Profiles of autonomy: Combining independence, volition, and pressure to examine well-being, conflict with parents, and the role of immigration background**

As the transition to adulthood in many Western societies is increasingly defined by independent decision-making, traditionally referred to as autonomy, understanding how it relates to well-being and conflict with parents is important. While independence is considered normative in these relatively individualistic societies, substantial within-country variation exists, including in the Netherlands, where an increasing number of youth have an immigration background from more collectivistic societies. Yet it remains unclear whether the benefits of independence differ for youth with and without an immigration background. A more comprehensive understanding of the implications of autonomy may emerge when independence is considered alongside another conceptualization of autonomy: volition. Volition refers to experiencing one's actions as aligned with deeply held values. The opposite, pressure, refers to feeling coerced. Whether youth decide independently or rely on their parents, it can feel volitional or pressured. Understanding these combinations is important, as they can carry different implications for youth with and without an immigration background. This study uses latent profile analysis to examine which combinations of independence, volition, and pressure emerge among youth with and without an immigration background; how

endorsement of individualistic and collectivistic values may shape which profile combinations youth belong to; and how these profiles relate to well-being and conflict with parents for youth with and without an immigration background. Data were collected among youth aged 16 to 25 living with at least one parent (N = 857; M_age = 20.88; 63.9% female; 53.3% with an immigration background). Results will be presented at the conference.

19. Nil Horoz: **Are there socioeconomic disparities in children's mindset and teachers' mindset about children in elementary school?**

Mindsets are implicit beliefs about one's capacity to grow their abilities. Socioeconomic status (SES) can influence how children view themselves and how they are viewed by others, such as teachers. This novel study examined (a) the associations between SES and children's own general, reading, and math mindsets, and (b) whether teachers' mindsets about children's reading and math abilities mediated the associations between SES and children's own reading and math mindsets. Participants were 396 children in sixth grade (53% female, Mage = 11.95) and 44 teachers (73% female, Mage = 41.28) from 13 elementary schools in the Netherlands. Children's general, reading, and math mindsets were measured separately using self-reports. Teachers separately reported their mindsets about each child's reading and math abilities, which reflected the extent to which teachers believed that each child's math and reading abilities were malleable or fixed. SES was operationalized by parental education. Preliminary results showed that compared to children from higher-SES backgrounds, children from lower-SES backgrounds had a weaker general growth mindset, tentatively weaker math growth mindset, and similar reading growth mindset. Furthermore, teachers' mindsets about children's math and reading abilities were not mediators. That is, teachers' mindsets about children's math and reading abilities did not differ by SES and did not associate with children's own reading and math mindsets. Future research is encouraged to study alternative mechanisms that may explain SES-related differences in children's mindsets.

20. Ethell-Marjorie Dubois: **Neural correlates of adolescents' trust in police: developmental and socio-economic-status effects**

During adolescence, the time between childhood and adulthood, social relationships rely on interpersonal trust. Brain regions involved in trust decisions (medial prefrontal cortex (mPFC), the precuneus and the temporoparietal junction (TPJ)) undergo structural and functional development. Simultaneously, adolescents gain awareness of their socio-economic status (SES), which can influence trust trajectories. As they spend more time in public spaces, institutional actors such as police, become more relevant. In this study, we examine the influence of SES on adolescents' trust to the police by combining fMRI with a Societal Trust Game (STG) to examine. We will identify neural correlates of giving trust to police compared to trust to a primary caregiver and an unknown caregiver. This study is part of the longitudinal Growing Up Together in Society (GUTS) project on the development of adolescents in a complex society in which individuals aged 10 to 20 years will be followed over the course of ten years. Data collection for the first wave was completed in January 2026, resulting in up to 212 participants who completed the STG during the fMRI scan. We expect adolescents' trust to correlate negatively to the societal distance of the target (parent > police > unknown parent). We expect the individuals

of low SES to show less trust to police as they report more negative experiences with the police compared to their high-SES peers. During trust considerations to closer targets, we expect stronger brain activity in social brain regions such as the mPFC, the precuneus, and the TPJ.

21. Niels Vullings: **Does ability grouping invoke essentialism in adolescence?**

Most educational systems group students based on their presumed ability – a practice known as ability grouping. Research shows ability grouping does not always positively affect performance, particularly for students in lower ability groups. Less is known about how ability grouping affects peer perceptions. We theorize that ability grouping, like other forms of grouping, may breed essentialism, the idea that ability groups have a certain underlying essence that cannot be observed directly; that ability group membership is caused by stable internal factors (like ability), and that students in the same groups are similar to one another. The current preregistered between-subject experiment tested this hypothesis (N = 359, 11-18 years). In both experiments, participants receive performance information of hypothetical students in primary school. In the ability grouping condition, participants see to what educational track the students are assigned. In the no grouping condition, participants are not aware of this information. Initial findings show that when peers are assigned to ability groups (vs not assigned), those in the same ability group are perceived as more alike (i.e., similarity, commonality and closeness). Furthermore, when assigned to ability groups, adolescents perceive the ability of students with high performance as more stable (i.e., developing early in life, expressed in future job). These results suggest that ability grouping might invoke essentialist thinking, indicating ability groups determine how you are perceived at school, regardless of academic performance. This research is crucial for designing differentiation practices that reduce educational inequality and improve students' wellbeing.

22. Nina Vos: **Childhood urban exposure and adolescent mental well-being: A longitudinal study in Amsterdam youth**

Adolescence and the transition to adulthood are sensitive developmental periods during which environmental contexts may shape trajectories of mental well-being. A growing body of research links urban living to poorer mental health outcomes, yet little is known about which specific neighborhood characteristics influence youth mental well-being or how long-term exposure to these environments affects well-being trajectories. Moreover, existing studies often rely on cross-sectional designs, limiting insight into temporal dynamics and the directionality of this relationship. This study investigates how urban neighborhood conditions across childhood relate to mental well-being in late adolescence using the Amsterdam Born Children and their Development (ABCD) cohort, a prospective cohort following approximately 1,700 Amsterdam-born children from pregnancy into adulthood. The current study focuses on positive aspects of mental well-being, conceptualized as subjective well-being (e.g., life satisfaction) and psychological functioning, assessed through measures of self-esteem. Residential histories will be linked to various neighborhood indicators derived from municipal data (e.g., socioeconomic conditions, green space, cohesion, safety), in order to reconstruct neighborhood exposure trajectories throughout childhood. Multilevel regression,

longitudinal growth models, and moderation analyses will be employed. By examining cumulative and changing neighborhood exposures across development, the study aims to clarify the directionality of the relationship between urbanicity and mental well-being, identify which urban environmental conditions are associated with later mental well-being outcomes, and determine which youth subgroups may be particularly sensitive to these exposures. Findings will contribute to developmental research on environmental influences on mental well-being and provide insights for urban policy and early prevention strategies in cities.

23. Laura Naemi Alders: **Socioeconomic differences in children's self-views**

Socioeconomic inequalities are increasing worldwide. From an early age, socioeconomic status (SES) shapes the environment children grow up in, including access to material resources, social networks, and daily experiences. These early experiences provide social cues that children use to make sense of themselves and their place in the world. As childhood and adolescence mark critical periods for identity development, the socioeconomic context children grow up in might play an important role in the development of their self-views. In this preregistered study, we therefore examine associations between SES and self-views across childhood and adolescence (age 7-18). We conducted seven studies that include detailed measures of both objective SES (i.e., parental education, income, and occupational prestige) and subjective SES, and standardized assessments of children's self-views (i.e., self-esteem, narcissism, self-perceived ability, self-perceived effort, and mindset). We pool data from seven studies ($N \approx 2200$; data analysis is ongoing) and use structural equation modeling to test associations between SES and multiple self-views, as well as age-related differences in these associations. Our findings are critical for understanding how growing socioeconomic inequalities shape children's developing self-concepts. They also provide a foundation for future research to explore how SES-related differences in self-views emerge, the mechanisms underlying these differences, and their consequences for education and development.

24. Josefina Bernardo: **Why does parental education predict teenagers' school grades? A Children-of-Twins study of teacher evaluations and national exams**

Purpose: A strong predictor of teenagers' academic achievement is their parents' educational level. It remains uncertain whether this reflects causal effects of parental behaviour or familial factors shared between parents and offspring. We examined how parental educational attainment relates to adolescents' grades in Norwegian (L1), English (L2), and Mathematics at age 16, the end of compulsory education, using a genetically informative design that can disentangle different sources of intergenerational resemblance. **Method:** Using data from the Norwegian population register ($N = 1,6$ million individuals from 200,000 extended families), we applied an indirect assortative-mating Children-of-Twins-and-Siblings (iAM-CoTS) model. For each subject, we compared two types of assessment - teacher evaluations and national exams - and estimated the genetic and environmental contributions to their intergenerational transmission. **Results:** Teacher evaluations and national exams showed substantial phenotypic ($r = .68-.76$) and very high genetic ($rA = .96-1.00$) overlap. Parent-offspring correlations were similar across assessment types ($r = .28-.31$). The resemblance

between parents' educational attainment and children's grades was largely explained by genetic transmission (about two-thirds), with smaller contributions of environmental transmission within and beyond the nuclear family (together about one-third).

Conclusions: The substantial correspondence between teacher evaluations and written exams suggests they capture largely the same underlying skills. Much of the reason why parental education predicts teenagers' academic achievement reflects inherited factors rather than solely the effects of parenting or family environment. Accounting for familial influences is essential for identifying the truly causal environmental factors shaping children's educational development.

Instructions for presenters

Poster instructions

Please note the following information regarding your poster presentation:

- Posters must be prepared on a single sheet.
- Posters should be in A0 portrait format.
- Please use the top of the poster to state both the title and authors exactly as mentioned in the submitted abstract.
- Ensure that the text, figures, and illustrations are clearly legible from a distance of approximately two metres.
- We can assist you with installing your poster using tape; please note that pins cannot be used.

Flashtalk instructions

Please note the following information regarding your flashtalk:

- Flash talks should be 5 minutes
- Please email your powerpoint presentation before June 10 to vnop2026@essb.eur.nl so that we can put them all on one computer beforehand.

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Location and directions

The conference takes place at Meet Tuesday (Weena 690, 23rd floor) in Rotterdam (<https://www.meettuesday.com>).

Car

There is a secure parking garage located beneath the Millennium Tower. The elevators provide access to the ground floor of the Millennium Tower. From there, you take another elevator to the 23rd floor, where Meet Tuesday is located. To reach the parking garage, navigate to Central Plaza Rotterdam at: Kruisstraat 13, 3012 CV Rotterdam.

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