



## 1<sup>st</sup> Annual Meeting

Nov 18, 2019

Haute Ecole de Travail Social, Lausanne

**Current trends in early childhood**

**Abstract book**

**Swiss** Society for Early Childhood Research

**Dear members of the Swiss Society for Early Childhood Research,**

**Dear participants,**

We welcome you to the very first annual meeting of the Swiss Society for Early Childhood Research! We are grateful to the University of Applied Science in Social Work of Lausanne for hosting us.

The society was launched on September 24th, 2018. We have since defined our vision and our objectives: Our vision is that all children grow up in conditions that promote their well-being and in which they are able to develop in the best possible way from the very beginning. Our interdisciplinary network SSECR aims to strengthen early childhood research in Switzerland and to stimulate the interaction between science, politics, and practice.

One of our strategic goals is to establish and activate an interdisciplinary network. The annual meeting is one of the society's key opportunities for such exchange.

We are proud to have had such a successful first year, with already about 150 members. The first annual meeting's call for proposal generated more than 50 contributions submitted to the conference, overwhelmingly with high scientific quality. As a result, a fascinating program awaits you, providing insights into the broad field of early childhood research taking place in Switzerland.

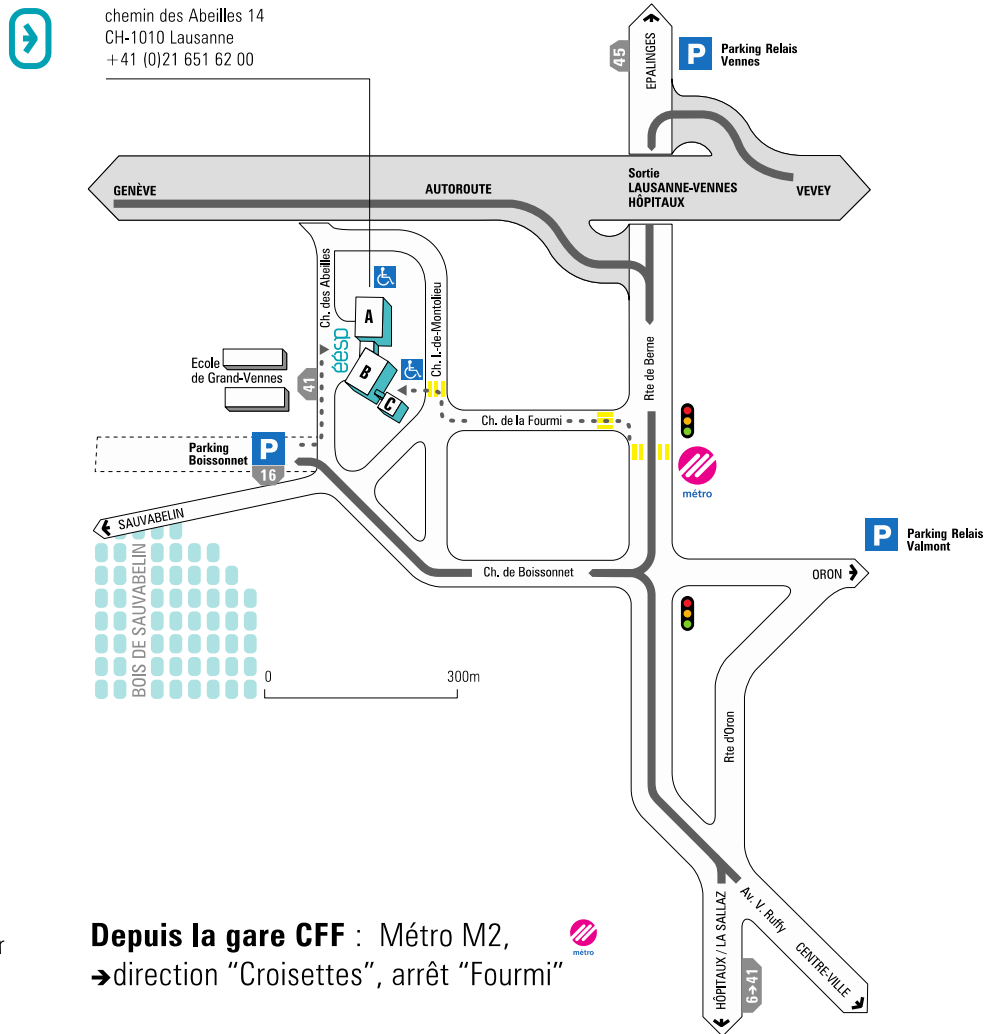
I wish you an exciting event, with lots of networking opportunities across disciplines and across geographical and language regions.

Prof. Dr. Sonja Perren

**President of the Swiss Society for Early Childhood Research**

## Conference Venue

### Directions



### Transports publics

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**L'école ne dispose pas de places de parc pour les étudiant·e·s et les visites  
Nous encourageons le recours aux transports publics**

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## Organizing Committee

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## Wifi Access

Network: event-eesp  
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## Program overview

Monday, 18<sup>th</sup> November 2019

### Morning

**08h30 Registration & Coffee**

09h00 Opening remarks by Prof. Dr. Sonja Perren, President of the SSECR

**09h15 Keynote** Prof. Lauren B. Adamson | Georgia State University

Expanding Views of Joint Engagement and Language in Early Childhood

10h15 Anja Gampe, Sara Aeschlimann, Marco Bleiker, Michael Wechner, Moritz Daum  
| University of Zürich

What to Tell a Voice Assistant? Children's Pragmatic Expectations of What Voice Assistants Should Know About

10h35 Ursula Fischer | University of Konstanz

Associations between Fine Motor Skills and Precursor Skills of Literacy and Numeracy in Early Childhood

10h55 Ursina MacCaskey, Volker Ressel, Fiona Meienberg, Ruth O`Gorman Tuura, Karin Kucian | University Children's Hospital Zurich

Can we predict the development of numerical competences based on brain imaging?

**11h15 Coffee & morning poster session**

12h15 Katharina Zahner, Bettina Braun | University of Konstanz

Early perception of intonation: Evidence for language-specific processes

12h25 Alex Knoll, Anna Becker | University of Fribourg

Establishing Multiple Languages in Early Childhood. An Ethnography of Multilingualism in German-English Daycare Centers in Switzerland

12h35 Stephanie Wermelinger, Anja Gampe, Natascha Helbling, Moritz Daum |  
University of Zürich

Early Communicative Sensitivity in Bilingual Pre-schoolers

12h45 Julien Mayor, Nivedita Mani | University of Oslo

BABYLEX – A 2-minute Tablet-based Version of MacArthur-Bates Communicative Development Inventories

**13h00 Lunch**

**14h00 SSECR General Assembly**

## Program overview

Monday, 18<sup>th</sup> November 2019

### Afternoon

- 14h45 Corina Wustmann Seiler, Patricia Lannen | Zürich University of Teacher Education  
Playfulness in Early Childhood and Adults' Play Support – Empirical Evidence
- 15h05 Tamara Carigiet | Bern University of Teacher Education  
Risk and protective factors during the transition to kindergarten – Results from the research project «Successfully Into Kindergarten»
- 15h25 Antje Horsch, Susan Garthus-Niegel, Erik Handtke, Tilmann von Soest, Susan Ayers, Kerstin Weidner, Malin Eberhard-Gran | University of Lausanne  
The impact of postpartum posttraumatic stress and depression symptoms on couples' relationship satisfaction: a population-based prospective study
- 15h45 Coffee & afternoon poster session**
- 16h30 Camille Deforges, Vania Sandoz, Suzannah Stuijzand, Kate Porcheret, Antje Horsch | University of Lausanne  
Impact of sleep after a traumatic childbirth on posttraumatic stress disorder development: a prospective study
- 16h40 Michael von Rhein, Aziz Chaouch, Corina Müllner, Patricia Ferro, Jon Caflisch | University Children's Hospital Zürich  
Preschool Children with Developmental Delay: The Standard of Care evaluated
- 16h50 Nora Turoman, Ruxandra Tivadar, Chrysa Retsa, Micah Murray, Gaia Scerif, Pawel Matusz | University of Lausanne  
Educational Outcomes Depend Both on Visual and Multisensory Control of Selective Attention
- 17h00 Agnes von Wyl, Jessica Pehlke-Milde, Larissa Schneebeil, Michael Gemperle, Ramona Koch, Katrin Braune-Krickau | Zürich University of Applied Sciences  
The influence of parental smartphones on maternal and paternal sensitivity to the infant
- 17h10 Keynote** Dr. Jamie M. Lachman | University of Oxford  
It's Time to Grow Up! Taking Early Childhood Interventions to Scale: Challenges and Opportunities
- 18h15 Cocktail**

Keynote | 09:15 – 10:15 a.m.

**Expanding Views of Joint Engagement and Language in Early Childhood**

Lauren B. Adamson  
Georgia State University

Joint engagement—the active sharing of objects and events with a partner during social interactions—is a central construct in current research on early communication and language development. A burgeoning literature now systematically observes the developmental course of joint engagement, describes how autism and other developmental disorders affect joint engagement, and documents the association between early joint engagement and language and early literacy outcomes. Indeed, there are volumes that discuss the psychological and philosophical implications of joint engagement during early childhood. But as the basic picture of joint engagement becomes clearer, it is also becoming more evident that its focus is still quite narrow. In this talk, I will draw on on-going studies to demonstrate how views of joint engagement and language learning can be profitably expanded to include culturally-specific aspects of parent-child interactions, the sharing of topics such as speech and environmental sounds that do not centre on vision, and the design and evaluation of parent-focused language interventions that seek to alter early joint engagement experiences. I will also discuss the implications of expanding our views of joint engagement, with particular emphasis on its promising impact on applied efforts to identify and remediate early joint attention problems and to promote high quality joint engagement experiences.

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Keynote | 17:10 – 18:10 p.m.

**It's Time to Grow Up! Taking Early Childhood Interventions to Scale: Challenges and Opportunities**

Jamie M. Lachman  
University of Oxford

The Sustainable Development Goals (SDG) have identified early childhood development as a priority focus area targeting multiple SDGs that include education, health, poverty, and gender. This is of paramount importance in the field of early childhood development where over one billion children in the Global South are still not meeting their developmental potential. In order to meet these targets by 2030, it will require the rapid dissemination of evidence-based interventions that can be implemented effectively at scale. However, despite substantial evidence on the effectiveness of early childhood interventions across multiple domains, many interventions fail when implemented at scale. The field of early childhood development requires a radical rethinking of how we develop and test interventions so that they can reach large numbers of beneficiaries and maintain their effectiveness at scale. This keynote lecture will discuss the need for innovative multidisciplinary research approaches aimed at optimising early childhood interventions for scale in the Global South. It argues for a synthesis of approaches from the fields of engineering, prevention and implementation science, health and development economics, public health and biotechnology. It will illustrate ways that academics, policymakers, and practitioners can work closely together to answer some of the most challenging questions regarding the scale up of early childhood interventions. Thus, it aims to shed light on how we can best serve those on the frontline of early childhood development while advancing our scientific knowledge regarding what works, for whom, and how in order to improve the wellbeing of children and their families.

## Oral Presentation | 10:15 – 10:35 a.m.

### **What to Tell a Voice Assistant? Children's Pragmatic Expectations of What Voice Assistants Should Know About**

Anja Gampe, Sara Aeschlimann, Marco Bleiker, Michael Wechner & Moritz Daum  
University of Zürich

Digital transformation comes with many societal changes, effecting not only business worlds but also individuals and interactions among individuals. One prominent example of digital transformation are voice assistants which are in use by more and more households. Children are thus exposed to artificial intelligence from an early age but we do not yet know about the social consequences. In our study, we investigated how children interact with voice assistants and how this differs from interactions with humans. During a treasure hunt, 5- 6-year old children receive hints from one of four different interaction partners which next location the children need to find. Children interacted with either a voice assistant or a human (medium). Each medium was either providing information or sharing past experiences (character). All children provided essential information to the interaction partner (what they found in the location in order to get the next hint from the interaction partner). During the search phases, we coded whether children talk more about the search process with one of the interaction partners (I can't find it... Wait a moment, I am searching... This is really difficult...). We found that children differentiated between an informative human (more talk) and an experience-sharing human (less talk), but communicated at around the same level to both characters of voice assistants. Our results show that children have different expectations of humans and voice assistants, changing the content of what children talk about to these interaction partners.

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## Oral Presentation | 10:35 – 10:55 a.m.

### **Associations between Fine Motor Skills and Precursor Skills of Literacy and Numeracy in Early Childhood**

Ursula Fischer  
University of Konstanz

Background: Previous studies suggest that different facets of fine motor skills are associated with precursor skills of literacy and numeracy during early childhood: Associations were observed between graphomotor skills and phonemic awareness (Suggate et al., 2018), dexterity and receptive vocabulary (Suggate & Stoeger, 2016) dexterity and counting skills (Fischer et al., 2018) and finger agility and calculation skills (Roesch et al., submitted). In this study, these findings were integrated by relating different fine motor skills to different precursor skills. We expected associations between (a) graphomotor skills and phonemic awareness, (b) finger agility and counting skills, and (c) dexterity, counting skills, and vocabulary; even when controlling for other cognitive skills. Method: Preschool children (N = 107, 53 girls) aged 4-6 years (M = 5;3 years, SD = 8 months) were tested on fine motor skills (graphomotor skills, dexterity, finger agility), precursor abilities (phonemic awareness, vocabulary, counting); and control measures (general cognitive skills, working memory). In a within-subject design, each child completed all tasks. Correlation analyses and hierarchical regression analyses predicting the three fine motor facets were conducted. Results: Counting skills predicted children's dexterity and graphomotor skills but was no longer a significant predictor after controlling for age. Both counting skills and phonemic awareness predicted finger agility, with phonemic awareness remaining a significant predictor when control variables were included. Discussion: Although confirming that different facets of fine motor skills are associated with precursor skills, the findings do not concur with previous research. Possible explanations and avenues for future research will be discussed.



## Oral Presentation | 10:55 – 11:15 a.m.

### Can we predict the development of numerical competences based on brain imaging?

Ursina MacCaskey, Volker Ressel, Fiona Meienberg, Ruth O`Gorman Tuura & Karin Kucian  
Center for MR-Research, University Children's Hospital Zurich

Successful mathematical performance relies on the development and establishment of well-organised networks in the brain. Fast and accurate connections between different brain regions for number processing are crucial for efficient transfer and adjustment of numerical information. A disturbance of these connections leads to impaired numerical performance, as reported in children with specific math learning disorder. The goal of the present study was to investigate the predictive merit of neuronal and behavioural measures for future math performance. In the present longitudinal study, we collected neuropsychological measures and diffusion tensor images (DTI) with an interval of 4 years from totally 21 children with and without math learning disorder (mean age 9.4 years). Integrity of white matter tracts as described by fractional anisotropy (FA) was calculated for the whole brain and subsequently correlated with performance of different numerical tasks. Results reveal, that high FA value in the left superior longitudinal fasciculus (SLF) at baseline is associated with a better outcome in basic numerical abilities at the follow-up measurement 4 years later. This is in line with the literature, showing that higher FA values in the SLF are positively associated with numerical performance. Moreover, our findings have also shown that the quality of the SLF predicts learning gains in addition and subtraction. In conclusion, our findings reveal that the quality of fibre connections (SLF) between brain regions predicts learning gains in arithmetic and basic numerical competences 4 years later. This opens new possibilities to identify children at risk for the development of specific math learning disorders.

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## Poster Presentation | 11:15 – 12.15 p.m.

### Home-Based Early Intervention: Kindergarten Follow-Up Results From the Randomized Controlled Trial ZEPPELIN

Simone Schaub, Alex Neuhauser, & Andrea Lanfranchi  
University of Applied Sciences of Special Needs Education

International evidence shows that support in the early years of life most effectively improves the long-term academic opportunities of children growing up in a potentially vulnerable environment. The present study examines the long-term effectiveness of early intervention in Swiss at-risk families on the basis of the longitudinal study ZEPPELIN. The 248 Families were enrolled in a randomized-controlled trial that compared child outcomes of an intervention group (IG) and a control group (CG) from birth up to 5 years of age. The IG (n = 139) was supported by the home visiting program "Parents as Teachers" during the first 3 years after birth. The CG (n = 122) received no additional support than standard services of the communities. After baseline data collection, children's outcomes were assessed yearly around their birthday. In Kindergarten, intelligence, mathematical skills, German language proficiency, and self-regulation were assessed using standardized tests; socioemotional skills were assessed in a parent and a teacher questionnaire. Multiple imputation was used to reduce biases due to attrition. Regression analyses showed beneficial effects on German proficiency, socioemotional skills (e.g., conduct problems, prosocial behaviour), and self-regulation. Applying the same analysis, no effects were found in intelligence and mathematics. These findings support the importance of offering support in at-risk families from an early age. Moreover, the observed effects (e.g. German proficiency, self-regulation) are particularly promising with regard to the future educational trajectories of the participating children.

## Poster Presentation # 1 | 11:15 – 12.15 p.m.

### **Moving beyond antenatal maternal mental health: Considering the role of antenatal paternal mental health in predicting adverse neonatal outcomes**

Anna Favero<sup>1</sup>, Vania Sandoz<sup>1</sup>, Suzannah Ravenscroft<sup>1</sup> & Antje Horsch<sup>1,2</sup>

Institute of Higher Education and Research in Healthcare (IUFERS), University of Lausanne<sup>1</sup> | Switzerland and Neonatology Service, Woman-Mother-Child Department, Lausanne University Hospital and University of Lausanne<sup>2</sup>

Background: Although pregnancy is generally depicted as positive and joyful, it also entails a period of adjustment and uncertainty that can involve the development of psychological distress related to depression and anxiety in both parents. Studies show that antenatal maternal depression and anxiety play a role in predicting adverse neonatal outcomes (e.g. preterm birth, low birthweight, low Apgar score). However, little is known about the role of antenatal paternal mental health factors in determining the risk of adverse neonatal outcomes. Aim: The current study builds on previous knowledge of adverse neonatal outcomes by considering the role of mothers' and fathers' antenatal mental health as risk factors. Furthermore, this study will investigate whether paternal antenatal mental health adds to the prediction of adverse neonatal outcomes (e.g. preterm birth, low birthweight, low Apgar score) beyond antenatal maternal mental health. Method: Pregnant women and their partners (optional) from the Lausanne Wellbeing Cohort Study completed the Hospital Anxiety and Depression Scale – HADS and socio-demographic questionnaires during the third trimester of pregnancy. Neonatal outcome data was extracted from postpartum medical records. Results: Hierarchical regressions will be conducted to investigate the research question. Analyses are ongoing but will be ready to present for the conference. Conclusion: Assessing the relative importance of paternal and maternal antenatal mental health in relation to adverse neonatal outcomes will provide new insights on potential antenatal parental risk profiles. Consequently, results would inform practice regarding screening and interventions during pregnancy, and the potential relative importance of including fathers-to-be in the latter.

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## Poster Presentation # 2 | 11:15 – 12.15 p.m.

### **Turkish preschool children's judgments and emotion attributions in the context of peer exclusion**

Melike Acar<sup>1</sup> & Seval Kecicioglu<sup>2</sup>

MEF University, Istanbul, Turkey<sup>1</sup> | University of Victoria, BC, Canada<sup>2</sup>

Prior research from the social domain perspective demonstrated that children as young as 41/2 viewed peer exclusion based on gender and ethnicity as morally wrong (Theimer et al, 2001). However, children were more likely to judge exclusion in multifaceted social contexts (such as excluding someone because toys are limited, or excluding some from a competitive playgroup because the peer is not qualified) with social-conventional reasons (Mulvey & Killen; Killen & Ruthland, 2011). Developmental research also documented that children were able to understand emotions associated with social exclusion (Arsenio, 2014). The present study investigated Turkish preschoolers' (N= 23, M age = 71.6 months old, SD =3.03 months) reasoning about gender and ethnicity-based peer. Children were individually interviewed about two different exclusion stories based on gender and ethnicity. Each story has two contexts: The first one is called baseline where preschoolers exclude a friend based on gender and ethnicity. In the second context, preschoolers were asked to evaluate decisions about excluding a peer based on gender and ethnicity to the playgroup where toys are limited. Children were asked to judge the permissibility of exclusion. They were also asked to anticipate children's emotions from the victim's (outgroup child who wants to join the play) and victimizer's (ingroup child excluding the outgroup child) perspectives. Results showed that Turkish children judged exclusion as morally wrong in both gender and ethnicity stories. Furthermore, they were more likely to choose the same sex friend to include by using gender stereotypical social conventions when resources are limited. Preliminary analysis of children's emotion attributions showed that they described victimizers as happy by providing psychological reasons. However, children were also able to take the perspective of the victims by expecting them to be sad. Results will be discussed in relation to prior research findings.

## Poster Presentation # 3 | 11:15 – 12.15 p.m.

### **To Allow or not To Allow? A Social-Cognitive Perspective on Parents' Opinions on the Use of Modern Digital Media in Early Childhood**

Fabio Sticca<sup>1</sup>, Simone Bamert, & Daniela Späni<sup>2</sup>

Marie Meierhofer Children's Institute, Zurich<sup>1</sup> | Zürcher Hochschule für Angewandte Wissenschaften<sup>2</sup>

Opportunities and risks that result from the use of modern digital media (MDM) in early childhood are still under-researched. Guidelines that have been issued to date tend to focus on potential negative effects. In some instances, it is suggested to avoid the use of MDM for children under three. Such guidelines have a strong potential of influencing parents' behaviour, especially if print media strengthen the focus on potential adverse effects of MDM. The aim of this pilot study was to shed light on parents' perspective on the topic using the Theory of Planned Behaviour as a framework. Parents of 126 children under 48 months ( $M=22.9$ ;  $SD=13.9$ ) reported on their children's MDM exposure as well as on their perceived social norm, their attitudes, their perceived behavioural control, and intentions. Results showed that the use of MDM steadily increased with children's age. Furthermore, indications of a complex chain of social-cognitive processes were found: A positive association between children's age and parents' perceived social norm was found. Further, the social norm was positively linked to parents' attitudes. In turn, these attitudes were associated with a higher intention of allowing the use of MDM, which proved to be conducive of MDM use. In sum, parents were found to regulate the use of MDM based on their children's age. This link is partially explained by a cascade of social-cognitive processes that are relevant for parents' behaviour. The role of guidelines as a tool for shaping social norms will be critically discussed.

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## Poster Presentation # 4 | 11:15 – 12.15 p.m.

### **Acute & Posttraumatic stress following Childbirth: Longitudinal Relationships and Predictors**

Suzannah Stuijtzand<sup>1</sup> & Antje Horsch<sup>1,2</sup>

Institute of Higher Education and Research in Healthcare (IUFERS), University of Lausanne<sup>1</sup> | Switzerland and Neonatology Service, Woman-Mother-Child Department, Lausanne University Hospital and University of Lausanne<sup>2</sup>

Background: Acute stress disorder (ASD) and Post Traumatic Stress disorder (PTSD) have both been found to occur following childbirth in mothers and fathers. ASD symptoms are present within the first month while PTSD symptoms are present for more than one month. Investigations suggest that postpartum ASD symptoms predict later postpartum PTSD. However, very few studies within the perinatal period assess the common and different predictors of ASD and PTSD. The diathesis stress model of postpartum PTSD suggests that PTSD may be influenced by vulnerabilities present prior to birth, risk factors (ASD) present at the time of birth and maintained by postpartum factors. Risk and maintaining factors may have direct relationships to PTSD, while vulnerabilities may show a direct or an indirect relationship to PTSD, through risk factors. Method: The Lausanne Wellbeing Cohort contains questionnaire data from mothers and their partners at 5 time points: 3rd pregnancy trimester, 1 week postpartum, 1 month, 3 months and 6 months postpartum. Data from over 300 participants is available at each time point. Using this Cohort data we will investigate the relationships between ASD and PTSD over time in the perinatal period, predictors of ASD and PTSD, and whether the relationships between PTSD and predictors change over time. Analyses will be conducted using structural equation modelling, with the diathesis stress model as a framework. Results: Analyses are underway. Discussion: Results will provide insights into prevention and intervention work on ASD and PTSD in the perinatal period, and how the support needs of couples may change over time.

## Poster Presentation # 5 | 11:15 – 12.15 p.m.

### **CAToon – a novel child-friendly functional neuroimaging task for the assessment of Theory of Mind**

Réka Borbás<sup>1,2</sup>, Lynn Valérie Fehlbaum<sup>1,2</sup>, Ursula Rudin<sup>2</sup>, & Nora Maria Raschle<sup>1,2</sup>

Jacobs Center for Productive Youth Development at the University of Zurich (Department of Child and Adolescent Psychiatry)<sup>1</sup> | University of Basel, Psychiatric University Hospital<sup>2</sup>

Background: Theory of Mind (ToM) or mentalizing is a basic social skill of perspective-taking and understanding of the cognitive and emotional states of others. It is essential for social interactions. Poor mentalizing skills have been associated with various childhood disorders (e.g. autism spectrum, developmental language, attention deficit hyperactivity and conduct disorder). The neural basis of mentalizing is well-studied in adults, but little neuroimaging evidence in children exists. Potential reasons are practical and technical methodological challenges, including a lack of child-friendly fMRI paradigms. Therefore, we aimed to develop and evaluate a novel child-friendly fMRI paradigm targeting ToM. Methods: 30 cartoon stories were designed, including 10 affective ToM (AT), 10 cognitive ToM (CT) and 10 physical causality (PC) stories. The behavioral part of the study investigated age-appropriateness based on behavioral responses in 62 children (35♂/27♀; 3-9 years). Additionally, using whole-brain neuroimaging in 27 healthy young adults (14♂/13♀; 26 years) the neural correlates of ToM using CAToon was evaluated (i.e. activation during mentalizing (AT + CT > PC); p5 years. Neuronal findings indicate robust ToM-related activation for young adults, thus allowing a meaningful application and interpretation of CAToon in developing samples.

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## Poster Presentation # 6 | 11:15 – 12.15 p.m.

### **Development and validation of the Lausanne Infant Crying Stress Paradigm: A stress paradigm for the early postpartum period**

Vania Sandoz<sup>1</sup>, Nadine Messerli-Bürgi<sup>2</sup>, Camille Deforges<sup>1</sup>, Suzannah Stuijzand<sup>1</sup>, Nicole Sekarski<sup>3</sup>, Ulrike Ehlert<sup>4</sup>, & Antje Horsch<sup>1,5</sup>

Institute of Higher Education and Research in Healthcare (IUFRS), UNIL, Lausanne<sup>1</sup> | Clinical Child Psychology & Biological Psychology, University of Fribourg, Fribourg<sup>2</sup> | Paediatric Cardiology Unit, Woman-Mother-Child Department, Lausanne University Hospital<sup>3</sup> | Department of Clinical Psychology and Psychotherapy, University of Zurich<sup>4</sup> | Switzerland and Neonatology Service, Woman-Mother-Child Department, Lausanne University Hospital and University of Lausanne<sup>5</sup>

Introduction: Following traumatic childbirth, 19% of mothers develop postpartum posttraumatic stress disorder (pPTSD). Mothers with PTSD can show disrupted physiological stress reactivity. Evidence suggests that maternal biological changes could be intergenerationally transmitted via early postnatal care and impact child developmental and biological outcomes. To our knowledge, maternal physiological stress reactivity has not been studied in early postpartum, mainly because no validated stress paradigm exists. This study aims to: 1. to validate the Lausanne Infant Crying Stress Paradigm (LICSP) within pPTSD low-risk mothers at ≤5 days postpartum; 2. to compare physiological stress responses within pPTSD low- vs. high-risk mothers. Methods: Pre- and post-stressor (i.e., LICSP) salivary cortisol samples, HRV measured at rest, under stress and during recovery, and a subjective anxiety scale assess maternal stress reactivity at ≤5 days postpartum. Psychological vulnerabilities are measured via self-report questionnaires. A power analysis estimated n=20 per group to have 80% power ( $\alpha=0.05$ ) to detect a between-group difference. Results: Data collection is ongoing (nlow-risk = 7, nhigh-risk = 11), but preliminary results will be discussed. Maternal stress reactivity following LICSP will be assessed in pPTSD low- and high-risk mothers and then, their stress responses will be compared. Discussion: Better understanding of physiological mechanisms occurring in early postpartum is primordial for families at risk of pPTSD. This could lead to the identification of risk factors and biomarkers, to a better comprehension of mechanisms involved in pPTSD, and to the development of evidence-based interventions to prevent pPTSD related adverse consequences on mothers and children.

## Poster Presentation # 7 | 11:15 – 12.15 p.m.

### **Where did the teddy bear go? Preschoolers' visual working memory performance is enhanced by location cues presentation.**

Christophe Fitamen<sup>1</sup>, Agnès Blaye<sup>2</sup>, & Valérie Camos<sup>1</sup>  
Université de Fribourg<sup>1</sup> | Université d'Aix-Marseille<sup>2</sup>

Working memory is crucial in learning, especially in academic learning, and it develops with age during childhood. Furthermore, working memory is a major predictor of cognitive development and school achievement. It has already been shown that preschoolers have poor performance in working memory tasks compared to older children. Indeed, we know that before 7 years of age, the absence of use of maintenance strategies accounts for the poor performance. In the present study, we examined how a visual cue could help preschoolers to implement maintenance strategies which could improve working memory performance in 3- to 6-year-old preschoolers. In a complex span task, children had to memorize the location of a teddy bear who moved from one house to another on a computer screen, while they judged the upward/downward position of the bear in each house. During the retention interval, either houses disappeared or remained on screen, providing some location cues. Our findings showed that preschoolers benefitted from the location cues, this effect remaining similar across age groups. These results suggest that visual working memory performance can be improved in preschoolers when the task embeds elements that can scaffold their maintenance strategies.

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## Poster Presentation # 8 | 11:15 – 12.15 p.m.

### **Stability and change of teacher self-efficacy in early childhood settings**

Yvonne Reyhing<sup>1,2</sup> & Sonja Perren<sup>1,2</sup>  
University of Konstanz<sup>1,2</sup> | Thurgau University of Teacher Education<sup>1,2</sup>

Quality of early childcare, especially the quality of caregiver-child interactions, is associated with teacher beliefs or personality. Within the debate of professionalization intrapersonal skills such as self-efficacy (S.E.) has gained more attention. For example, Perren et al. (2015) showed that the relation between pedagogical knowledge and educational practice is mediated by S.E. As it is assumed that professional development lead to changes in S.E., a deeper understanding of the underlying processes essential. Bandura (1997) described S.E. as affected by mastery or vicarious experiences. Deduced from this, we assume that teachers' years of experience and collaboration with others can improve S.E. Different studies of these parameters in early childcare settings as well as in school settings showed inconsistent results. We used a longitudinal design to examine stability and change of S.E. We specifically investigate which person characteristics like teachers' years of experience, job satisfaction, collaboration with others as well as situational factors such as changing work conditions (e.g. roles or institutions) and contextual predictors on the side of the daycare institution (e.g. change processes on the management level or in quality management) are relevant for the change. In total, 151 early childcare teachers participated twice in an online survey. The average time interval between measurement points was 2.5 years. We scale self-efficacy in relation to child centered educational practice showed a high internal consistency  $\alpha=.81/77$ . We calculated latent change models which showed strong factorial invariance over time. The analyses showed a high level of stability of S.E.:  $r=.49$ . However, we found significant intraindividual variance of change. In further analyses, we will examine predictors of the change variance.



## Poster Presentation # 9 | 11:15 – 12.15 p.m.

### **Emotional and physiological stress responses to an age-adapted stress task in preschool children**

Mareike Groene<sup>1</sup>, Anaëlle Leuab<sup>1</sup>, Simone Munsch<sup>1</sup>, Jardena J. Puder<sup>2</sup>, Susi Kriemler<sup>3</sup>, Oskar G. Jenni<sup>4</sup>, & Nadine Messerli-Bürigi<sup>1</sup>

Clinical Child Psychology and Biological Psychology, Department of Psychology, University of Fribourg<sup>1</sup> | Obstetric Service, Woman-Mother-Child Department, Lausanne University Hospital<sup>2</sup> | Epidemiology, Biostatistics and Prevention Institute, University of Zurich<sup>3</sup> | Children's Research Center, University Children's Hospital Zurich<sup>4</sup>

The capacity to respond to challenging conditions is known to impact on behavioral problems in children. However, previous studies focusing on emotional and physiological stress responses in preschool children revealed mixed findings due to age-related cortisol hypo-responsivity, methodological inconsistencies and the lack of adaptation to the child's cognitive skills at that age. Thus, the aim of this study was to investigate emotional and physiological stress responses to an age-adapted stress task considering higher cognitive complexity in 2-6-year-old children. Emotional and physiological stress responses to an age-adapted stress task at the child care center were assessed in a total of 351 healthy preschool children (m/f 184/167, mean age= 4.85 (SD 0.67)) of the multi-site Swiss Preschoolers' health study SPLASHY (ISRCTN41045021). Assessment included a picture stress test. Analyses revealed changes in experienced emotional state (odds ratio=0.24 (95%-CI=.14-.41).

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## Poster Presentation # 10 | 11:15 – 12.15 p.m.

### **Traumatic Childbirth: Comparison of the subjective perception of parents, midwives and obstetricians. A mixed study**

Sebara Gashi<sup>1</sup>, Suzannah Stuijtzand<sup>1</sup>, Antje Horsch<sup>1,2</sup>, & Vania Sandoz<sup>1</sup>

Institute of Higher Education and Research in Healthcare (IUFERS), University of Lausanne<sup>1</sup> | Switzerland and Neonatology Service, Woman-Mother-Child Department, Lausanne University Hospital and University of Lausanne<sup>2</sup>

Background: Parents often share birth with health professionals. Although most childbirths result without adverse birth outcome, 1/3 women experiences birth negatively. A traumatic birth might occur when the mother and/or the child are exposed to life threat, and/or threatened and/or actual severe injury. Traumatic childbirth may lead to mental health problems. Parental mental health may affect child development whereas health professionals' mental health may lead to burnout and/or lower quality care. Knowledge on the perception of traumatic childbirth (PTC) of families and health professionals is lacking and research is needed. Aim: This study aims to investigate the PTC within mothers, their partner, midwives, and obstetricians (n<sub>birth</sub>=80). The second goal is to better understand the factors impacting the PTC in function of those people. There are three research questions: 1) What is the proportion of births perceived as traumatic according to mothers, partners, midwives and obstetricians? 2) What are the medical and psycho-socio-demographic factors influencing the PTC amongst mothers, partners, midwives and obstetricians? 3) What are the most traumatic elements of birth according to mothers, partners, midwives and doctors? Method: This study has a mixed methods design. Multilevel modelling will be used to analyse the quantitative part (Q1-Q2). The qualitative part (Q3) will be analysed using thematic analysis. Results: Data collection is planned in 2019. Discussion: Results will increase awareness of what factors contribute to the PTC within parents, midwives and obstetricians. They could contribute to improved care for families, as well as better support for health care professionals and medics.

## Poster Presentation # 11 | 11:15 – 12.15 p.m.

### **The perceived contribution of early childhood educators in developmental screening processes**

**Britt-Marie Martini-Willemin & Myriam Gremion**  
University of Geneva

Early childhood educators working in preschool daycare centers are expected to observe and monitor the development of the young children in their service. Thus, they contribute to the larger process of screening for the identification of possible developmental disorders or delays. In our collaborative project, we conducted short interviews (N=28) with early childhood educators working in preschool daycare centers located in Geneva, in order to investigate their comprehension of the concepts of monitoring, screening and diagnosing. We also questioned them about their perceptions of the specific roles they have to assume in the screening processes: Do they attribute themselves this role? Do they estimate that they are sufficiently trained and equipped to master what is expected from them? What are the benefits and limitations of screening processes conducted in preschool daycare centers? How do they integrate the network of professionals around a specific child whose development seems at risk and its parents, and how do they collaborate within this network? The interviews show that professionals' understanding of concepts relating to screening or diagnosis varies considerably and, consequently, this influences the degree to which they are involved in monitoring and screening. The results also reveal the educators' need for tools, especially tailored to document the child's progress within a natural setting, as well as to unveil the developmental domains that would require additional support.

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## Poster Presentation # 12 | 11:15 – 12.15 p.m.

### **Preschool Literacy Intervention for Low-Income, Ethnically Diverse Children: Effects of the Early Authors Program Through Kindergarten**

**Alicia Borre<sup>1</sup>, Judith Bernhard<sup>2</sup>, Charles Bleiker<sup>3</sup>, & Adam Winsler<sup>4</sup>**  
Hampton University<sup>1</sup> | Ryerson University<sup>2</sup> | Florida International University<sup>3</sup> | George Mason University<sup>4</sup>

Contemporary perspectives on emergent literacy in preschool emphasize the importance of providing developmentally appropriate, authentic, early writing experiences and supporting students' home language and culture. The current study analyzed kindergarten outcomes for 82 linguistically diverse, low-income children (60% Black, 40% Latino) who participated in the Early Authors Program (EAP) during preschool (Bernhard, Winsler, Bleiker, Ginieniewicz, & Madigan, 2008), and those for a demographically similar comparison group of 33 children who did not receive the intervention. The intervention emphasized family involvement and cultural sensitivity and involved children self-authoring books about themselves and their family. Children in the EAP program scored higher than comparison children on school readiness screeners a year or two later in kindergarten, and were more likely to be classified as "ready" for school. EAP children also outperformed comparison children on emergent (English) literacy skills in kindergarten as measured by the DIBELS. Boys in the EAP group received higher grades in kindergarten than boys in the comparison group. The positive effects of the Early Authors Program appear to be sustained through kindergarten.

## Poster Presentation # 13 | 11:15 – 12.15 p.m.

### **Infant effortful control: The effect of maternal stress on infant temperament**

Leah Mycue & A. Rebecca Neal-Beevers  
University of Texas at Austin

Effortful control (EC), a subset of temperament, determines one's ability to regulate attention, adapt to novel situations, and inhibit control (Rothbart, 2012). Levels of infant EC have been shown to vary depending on stress levels of the mother. With a sample of mother-infant dyads (N = 42), this study aims to determine whether maternal stress influences EC in infants concurrently at 15 and 24 months of age, whether maternal stress at 15 months will predict EC at 24 months in infants, and discern whether high maternal stress results in mothers' misperceptions about infant EC, when compared to objective measures. Results revealed that maternal PSI scores at 15 months were significantly negatively correlated with IBQ-EC at 15 months. Maternal PSI scores at 24 months were significantly negatively correlated with ECBQ-EC at 24 months. As expected, higher parenting stress was associated with lower infant EC. As expected; higher parenting stress when infants were 15-months-age predicted lower EC at 24 months. No difference was observed in PSI between match and mismatch groups at 15 months. However, a significant difference was observed between match and mismatch groups at 24 months. Specifically, mothers who either under-reported or over-reported their child's EC when compared to objective behavioral coding of EC also reported greater parenting stress than mothers who accurately perceived their infant's EC when compared to objective behavioral coding of EC. Strengths and limitations of the presented study are discussed, as well as direction for future research.

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## Poster Presentation # 14 | 11:15 – 12.15 p.m.

### **How do we play together? Influence of gender and family alliance on parent's play behavior in the first two years**

Gloria Repond, Noémie Lapalus, Hervé Tissot, & Jean-Nicolas Despland  
Unité de Recherche, Centre d'étude de la famille, Institut universitaire de psychothérapie, Département de psychiatrie, Centre Hospitalier Universitaire Vaudois

Background: What does influence parents' behaviours when they are playing with their children? Studies have demonstrated differences in the interactive styles of mothers and fathers with their children. The child's gender and the global family functioning may also have an effect on parental interactional behaviours. The aim of this longitudinal study was to investigate how gender roles and family alliance influence the behaviours of mothers and fathers playing with their children. Method: 67 non-clinical families participated in videotaped playing sessions when the target child was 3, 9 and 18 months old. Parents were asked to play in a dyadic situation (each parent playing alone with the child) and in a triadic situation in order to assess the family alliance. Parent's play behaviours were coded using the Coding of the Direction of Parental Interest (CDIP). Analyses were performed using General Linear Mixed Models to account for both within- and between-individual variability. Results: Results showed that mothers displayed more interferences' behaviours with their children. Both parents used more stimulation with girls. Stimulation and observation in play decreased over time while joint activities and interferences increased. Finally, we found that disorganized families show less observation and joint activity and more stimulation and interference in their play. Discussion: The way parents play with their children is influenced by their gender and by the child's gender. However, our results showed that the family alliance has a substantial impact on the play behaviours, as disorganized families are more likely to interfere or stimulate the child's play.



## Poster Presentation # 15 | 11:15 – 12.15 p.m.

### Young children's understanding of object rotation: Evidence from a multi-method approach

Andrea Frick & Salome Pedrett  
University of Fribourg

In two studies, children's understanding of object rotation was investigated using several new tasks. In Study 1, the development of mental rotation was investigated in 3.5 to 5.5-year-olds (N=70) using a simplified task in which the rotation axis was clearly defined. Two identical flags were presented on two separate boards. Each flag was attached to a pivot, around which it could be rotated until it reached a counterpart. One counterpart was identical to the flag – the other was mirror-reversed. Children were asked to choose the flag that would fit the counterpart if rotated. Results showed that children under 4 years performed above chance up to a rotation angle of 150°, and response times increased with angle, suggesting the use of mental rotation. In Study 2, toddlers (22-38 months, N=44) were presented with a shape that rotated but was temporarily occluded, while their eye-movements were recorded. In a second task, they were asked to manually insert various wooden blocks into corresponding apertures. Results showed that distributed visual encoding of the observed rotation was associated with more anticipatory looks to where the shape would reappear after the occlusion, which in turn was related to how well toddlers preadjusted the wooden blocks before fitting them through the apertures. Taken together, the findings suggest that children are able to use mental rotation before the age of 4, that toddlers form stronger mental representations of rotational object movement with increasing age, and that these representations are tightly related to emerging action competencies.

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## Poster Presentation # 16 | 11:15 – 12.15 p.m.

### Can Social Pretend Play Tutoring Effectively Promote Children's Pretend Play Competence? An Investigation of Mechanisms of Change

Isabelle Kalkusch<sup>1,2</sup>, Ann-Kathrin Jaggy<sup>1,2</sup>, Carine Burkhardt Bossi<sup>2</sup>, Barbara Weiss<sup>2</sup>, Fabio Sticca<sup>3</sup>, & Sonja Perren<sup>1,2</sup>  
University of Konstanz<sup>1</sup> | Thurgau University of Teacher Education<sup>2</sup> | Marie Meierhofer Children's Institute, Zurich<sup>3</sup>

Empirical findings confirm associations between children's social pretend play and their social-cognitive and social skills. Some training studies have shown positive effects of play tutoring on children's social behaviour. However, the causality and the underlying mechanisms of change of these associations is not clarified yet (Lillard et al., 2013). This intervention study investigates whether children's pretend play quality (stimulated through social pretend play tutoring) is a mechanism of change for their pretend play competence. Therefore, 28 Swiss playgroups (N=200 three- to four-year-olds) were randomly assigned to the intervention group (play tutoring), the material group (half-dose) and the control group (treatment as usual). The treatment took place 6 times (once a week). Pre-tests, post-tests and a follow-up were made. Children's pretend play quality during each treatment session was assessed by Assessment of Social Pretend Play Level. Children's pretend play competence was assessed at each timepoint with a multi-method approach including three methods: Dyadic Pretend Play Assessment (DPPA), Tools of the Play Test (TOPS; Seeger & Holodynski, 2016) and an educator questionnaire. We investigate if the expected increase in children's pretend play competence through the treatment is explained by their pretend play quality. Preliminary results based on the first study-wave showed that play tutoring can increase children's pretend play quality. The results also indicate an indirect effect ( $\beta=.21$ ) of the treatment on the change in children's pretend play competence. Upon completion of the study the analysis will be conducted with the final sample, and the results presented and discussed at the conference.

## Poster Presentation # 17 | 11:15 – 12.15 p.m.

### **A cross-cultural study in counting span task between Chinese and Swiss children**

Stéphanie Mariz-Elsig<sup>1</sup>, Diana Dos Santos Sanches<sup>1</sup>, Carine Valnet<sup>1</sup>, Dylan Wang<sup>2</sup>, Xiao Zhao<sup>2</sup>, & Valérie Camos<sup>1</sup>

Department of Psychology, University of Fribourg <sup>1</sup> | Nobo Columbia Corporation, Beijing, People's Republic of China<sup>2</sup>

Our study aimed at understanding the impact of the numerical system and age of schooling on working memory capacities by comparing Swiss and Chinese children (aged between 3 and 6 years) in a counting span task. The Chinese numerical system is known to allow an earlier acquisition comparing to the Swiss (French) numerical system. For this purpose, children were asked to count and memorize the number of candies appearing on screen while disregarding distracting cars. The number of arrays to memorize increased across trials to assess children's WM capacities. Recall performance were expected to be similar between Swiss and Chinese children when entering school. However, thanks to the transparent Chinese number system and the earlier school enrolment, recall performance in Chinese children should more strongly increase across ages than in Swiss children. Our results showed no-significant difference within the same year of schooling, except in the first year during which Chinese children are significantly better at counting than Swiss children. An improvement was observed in recall and counting performance between the first and second years of schooling, and the learning curve was similar between the two cultures. By comparing Swiss children aged 5 to 6 years (enrolled in grade 1) to Chinese children of the same age (enrolled in grade 2), we found that Chinese children's performance in recall and counting was significantly higher. These results showed an impact of culture on the development of mathematical skills, and how this affects working memory.

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## Flash Presentation | 12:15 – 12:25 p.m.

### **Early perception of intonation: Evidence for language-specific processes**

Katharina Zahner & Bettina Braun

University of Konstanz

Experience with language already starts in the womb (Richards et al., 1992) with prosodic properties of speech being preserved. Accordingly, infants tune in to their native language(s) (Nazzi et al. 1998). We here present two lines of research on German infants' early perception of intonation: (1) Using the switch-procedure, we studied how native-language experience with the prosodic marking of illocution type modulates the ability to discriminate intonational contrasts (falls vs. rises). Contrary to Portuguese (Frota et al. 2014) and Basque (Sundara et al. 2015) infants (where intonation is the sole means to illocution-type distinction), but similar to English infants (Sundara et al., 2015) (morpho-syntactic marking), German infants (Czeke et al., 2019) did not discriminate Portuguese falling vs. rising contours from (Frota et al., 2014). Hence, the extent of morpho-syntactic cues to question-marking in the native language might determine infants' ability to discriminate contours. (2) Using the head-turn- preference procedure, we also studied the effect of pitch accent type (whether or not an f0 peak is aligned with the stressed syllable) on German infants' perception of stress and hence their ability to extract trochees from speech: Infants only interpreted the stressed syllable as stressed when it coincided with an f0 peak (Zahner et al. 2016) – mirroring the salience of high-pitched syllables or, more language-specifically, the high occurrence frequency of high-pitched stressed syllables in German infant- directed speech (Zahner et al. 2016). We will discuss language-specific processes in early development of intonation perception and derive hypothesis for languages with 1) different patterns in the marking of illocution and 2) different distributions of pitch accent types (e.g., Swiss German (Leemann, 2012).

## Flash Presentation | 12:25 – 12:35 p.m.

### **Establishing Multiple Languages in Early Childhood. An Ethnography of Multilingualism in German-English Daycare Centers in Switzerland**

Alex Knoll & Anna Becker  
University of Fribourg

The presence of multiple languages has a long tradition in Swiss education. Yet, learning a second language only starts at grade 5 (HarmoS). In early education and care, there is usually just one language present, spoken predominantly by teachers while children's multiple (migrant) languages pass unnoticed. There are some daycare centers offering a (historically grown) multilingual learning environment, such as German-French, mainly along the language border (Brandenberg et al. 2017). Additionally, there are some offers including English as medium of instruction, but hardly any research exists on these so far. Relying on the concept of the ethnography of multilingualism (Blackledge/Creese 2010) and research on dealing with multilingualism in early childhood in Switzerland (Brandenberg et al. 2017, Kassis-Filippakou/Panagiotopoulou 2015) and in other countries (e.g. Neumann/Seele 2014, Kim et al. 2018), we ask 1. how multiple languages are introduced by teachers in everyday classroom interaction, and 2. which importance is being attached to children's linguistic resources in other first languages. In an ethnographic field study conducted in spring 2019 in three German-English daycare centers in German-speaking Switzerland, we observed teachers and pupils in their linguistic interactions. The centers' websites, linguistic conceptions as well as interviews with the center leaders are also considered. Preliminary results show that (Swiss-)German seems to be the main language in the daycare centers, while English as an additional language is spoken by one teacher of the group and/or during special pedagogical sequences. Teachers do not refer to the children's linguistic resources in other languages unless in very short specific routines such as individual counting in a circle sequence. We conclude that while English is 'let in' the classroom, other languages are 'locked out', which might be even more so true for these settings than for conceptually monolingual ones.

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## Flash Presentation | 12:35 – 12:45 p.m.

### **Early Communicative Sensitivity in Bilingual Pre-schoolers**

Stephanie Wermelinger, Anja Gampe, Natascha Helbling & Moritz Daum  
University of Zurich

Bilinguals encounter more challenging communicative situations compared to their monolingual peers, which might result in a heightened sensitivity to their interaction partner. In two studies, we explored whether monolingual and bilingual pre-schoolers differ in their sensitivity to other's needs and intentions. In the first study, monolingual and bilingual 3-year-olds (N = 110) observed two puppets looking for puzzle pieces. One puppet appreciated children's help in finding the puzzle pieces, the other puppet wanted to solve the puzzle on its own. The children's communicative acts were coded in terms of level of ostension (how obviously they indicated the hiding place) and level of information (how clearly they indicated the location). Monolinguals and bilinguals were equally helpful and informative. In contrast, only bilingual children adapted their level of ostension selectively between the two puppets. Bilingual but not monolingual children adapted to their interaction partners' varying intentions and helped less ostensive where help was not wanted. In the second study, monolingual and bilingual 4.5-year-olds (N = 80) children met a deaf puppet and were asked to indicate "with their hands" which objects the puppet should give them next. We coded the intelligibility of children's iconic gestures. Bilingual pre-schoolers produced more intelligible iconic gestures than monolinguals. Bilinguals compared to monolinguals adapted more to the deaf puppets needs and used appropriate gestures. Together, bilingual children showed a higher sensitivity to other's intentions and needs than monolinguals. We assume this to result from them experiencing more variable and challenging communication.

## Flash Presentation | 12:45 – 12:55 p.m.

### **BABYLEX – A 2-minute Tablet-based Version of MacArthur-Bates Communicative Development Inventories**

Julien Mayor<sup>1</sup> & Nivedita Mani<sup>2</sup>  
University of Oslo<sup>1</sup> | University of Göttingen<sup>2</sup>

Background and aims: MacArthur-Bates Communicative Development Inventories (CDIs; Fenson et al., 2007) are one of the most widely-used evaluation tools of early language development. CDIs are filled in by parents or caregivers of young children by indicating which of a pre-specified list of words and/or sentences their child understands and/or produces. Despite its success, their administration is time-consuming and can be of limited use in clinical settings, multilingual environment or when parents possess low literacy skills. Methods: A new method will be presented, in which an estimation of the full-CDI score is obtained by combining parental responses on a limited set of words randomly sampled from the full CDIs with vocabulary information extracted from the WordBank database (Frank et al., 2017), sampled from age-, gender- and language-matched participants. Results: Real-data simulations using CDI-WS for American English, German and Norwegian as examples revealed high accuracy and validity of the instrument even for tests having just 25 words, effectively cutting administration time to a couple of minutes. Empirical validation with new participants confirmed the robustness of the test (Mayor & Mani, 2018). Versions of an app and of a web-interface implementing the instrument will be introduced. Conclusions: BabyLex – the 2-minute tablet-based version of MacArthur-Bates Communicative Development Inventories – is a fast yet valid method for assessing early lexical development between 8 and 36 months of age.

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## Oral Presentation | 14:45 – 15:05 p.m.

### **Playfulness in Early Childhood and Adults' Play Support – Empirical Evidence**

Corina Wustmann Seiler<sup>1</sup> & Patricia Lannen<sup>2</sup>  
Zürich University of Teacher Education<sup>1</sup> | Marie Meierhofer Children's Institute, Zurich<sup>2</sup>

Background: Playfulness is the quality of a child's play, it's disposition to engage in play (Barnett, 1991). Although high relevance is attributed to playfulness for children's development, the state of empirical research is still marginal (Barnett, 2018; Keles & Yurt, 2017). In particular, very little is known about differential effects of adults' play support in the family and in early education and care settings on children's playfulness. Adults' have an important role in providing a stimulating play and learning environment (Zosh et al., 2017), but what is appropriate play support to promote children's playfulness? Method: As part of a pilot study, 76 parents reported on their child's playfulness (51.3% female;  $M_{Age}=4.49$  years,  $SD_{Age}=1.53$ ), their own playfulness, their play and self-efficacy beliefs, and their role in their child's free play. In parallel, we conducted two systematic reviews (within 14 databases) in relation to playfulness in childhood and adult's involvement in children's free play, in English and in German separately. Results: Results of the pilot study showed that parental playfulness, parental play support beliefs as well as parental non- involvement in children's free play have a significant effect on children's playfulness controlling for children's age, presence of siblings and parental self-efficacy. The results will be supplemented by the findings of the two systematic reviews. Discussion: Time and opportunities for free play in young children without active involvement of adults' and parental own playfulness have an underestimated significance for children's playfulness. Strengths and limitations of the studies will be discussed.

## Oral Presentation | 15:05 – 15:25 p.m.

### **Risk and protective factors during the transition to kindergarten. Results from the research project «Successfully into Kindergarten»**

Tamara Carigiet  
University of Teacher Education Bern

In 2015, kindergarten has become part of the obligatory school in most of the cantons of Switzerland. Although transition to kindergarten has become more important, there is still a lack of empirical data for this early stage of formal schooling (SKBF 2014; Fasseing Heim, Rohde & Isler 2018). In this presentation, we focus on the success of transition to kindergarten and its determinants. Based on the IFT-transition model (Griebel & Niesel 2004, 2011), a multidimensional construct of a «successful transition to kindergarten» was developed. The explanatory variables stem from both the individual and the contextual level (multilevel approach). Data collection took place in autumn 2016, including the views of parents of 255 children in the 1st year of kindergarten and their kindergarten teachers (written questionnaires). The children's verbal comprehension was assessed using a standardized test (Sprachgewandt; Bayer, Moser & Berweger 2013). As the results indicate, transition to kindergarten is mastered quite well by most of the children. Not sufficient knowledge of the language, behavioral problems, being a boy and a low educational background of the family are factors that are associated negatively, having known children in the group and the child's development in doing daily activities autonomously are factors that are associated positively with the success of transition to kindergarten. Our results shed light on the factors that can foster or inhibit the early transition from family to formal schooling, and can help to identify children at risk, with the aim of providing them support as early as possible.

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## Oral Presentation | 15:25 – 15:45 p.m.

### **The impact of postpartum posttraumatic stress and depression symptoms on couples' relationship satisfaction: A population-based prospective study**

Antje Horsch<sup>1,2</sup>, Susan Garthus-Niegel<sup>3</sup>, Erik Handtke<sup>3</sup>, Tilmann von Soest<sup>4</sup>, Susan Ayers<sup>5</sup>, Kerstin Weidner<sup>3</sup>, & Malin Eberhard-Gran<sup>4</sup>  
University of Lausanne<sup>1</sup> | Lausanne University Hospital<sup>2</sup> | Technische Universität Dresden<sup>3</sup> | University of Oslo<sup>4</sup> | City University London<sup>5</sup>

Background: The couple relationship is of particular importance in the transition to parenthood and in the early childhood years because it is related to the well-being and mental health of partners, children, and the family. To date, studies examining the influence of postpartum PTSD on couple relationship satisfaction are sparse. We hypothesized that postpartum PTSD will be prospectively associated with low couple relationship satisfaction, even when taking into account a variety of potential confounding variables, and that the effect of postpartum PTSD symptoms on couple relationship satisfaction will be mediated by postpartum depression symptoms. Method: In this prospective cohort study, information from hospital records and questionnaires completed at 17 weeks gestational age, as well as at 8 weeks and 2 years postpartum were used (n = 1480). Outcomes were measured using standardized questionnaires. Data were analysed using bivariate correlations, multivariate regression analyses, and mediation analyses. Results: Postpartum PTSD symptoms were prospectively related to low couple relationship satisfaction at two years postpartum, even when controlling for background factors. When including postpartum depression symptoms as predictor in the analyses, the effect of postpartum PTSD was no longer significant. Moreover, more detailed analyses showed that postpartum depression symptoms acted as a significant mediator, fully explaining the association of postpartum PTSD with couples' relationship satisfaction. Discussion: Early detection of couples' relationship problems and the provision of professional help, particularly in high-risk couples may not only improve the quality of the couple relationship but also improve parenting and promote positive child outcomes.



## Poster Presentation # 18 | 15:45 – 16.30 p.m.

### **Maternal IPV-PTSD and related exposure to trauma during childhood as it affects maternal and child emotional comprehension**

Virgnie C. Perizzolo<sup>1</sup>, Cheryl Stein<sup>2</sup>, Emina Arnotauvic<sup>1</sup>, Erica Willheim<sup>2</sup>, Marylène Vital<sup>3</sup>, Sandra Rusconi Serpa<sup>1</sup>, Francisco Pons<sup>4</sup>, & Daniel S. Schechter<sup>5</sup>

University of Geneva<sup>1</sup> | New York University Langone School of Medicine<sup>2</sup> | University of Geneva Hospital<sup>3</sup> | University of Oslo<sup>4</sup> | University of Lausanne Medical Center<sup>5</sup>

Background: Previous results obtained from the Geneva Early Childhood Stress Project (GECS-Pro) when children were ages 1 to 3.5 years revealed maternal and child difficulties in identifying emotions associated with maternal interpersonal violence related posttraumatic stress disorder (IPV-PTSD). In the present research, we investigated the child's level of emotion comprehension (EC) and his or her mother's ability to take her child's perspective and imagine how he/she would respond to an EC task. Methods: We calculated whether mothers over- or underestimated their child's performance on the Test of Emotional Comprehension (Pons et al., 2005), using logistic regression modelling. Models were adjusted for SES, child sex and maternal depression on the Beck Depression Inventory-II. Results: Women with PTSD are 6 times more likely (95% CI 1.3 – 30.9) to score in the bottom third of the TEC compared to women without PTSD. Women with DV are 3 times more likely (95% CI 0.9 – 8.8) to score in the bottom third of the TEC compared to women without PTSD. There was no significant relationship between maternal and child performance on the TEC. Discussion: This study found that traumatized mothers performed significantly more poorly on the TEC when asked to take their child's perspective than non-traumatized mothers. Studies of the same sample shown that children of traumatized mothers have significantly higher rates of internalizing and externalizing disorders from early childhood through school-age. A clinical focus on maternal emotional comprehension as an aspect of mutual emotion regulation and mentalization may help to reduce child risk for psychopathology in this population.

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## Poster Presentation # 19 | 15:45 – 16.30 p.m.

### **The communicative functions of sulking, anger, and disappointment in young children**

David Hardecker<sup>1</sup>, Marco Schmidt<sup>2</sup>, & Daniel Haun<sup>3</sup>

Leipzig University<sup>1</sup> | University of Bremen<sup>2</sup> | Max-Planck-Institut für Evolutionäre Anthropologie<sup>3</sup>

Social emotions are often hypothesized to involve important communicative functions that regulate social interactions. In the study presented here, we investigate the communicative functions of hurt feelings, anger, and disappointment in children. We hypothesize that hurt feelings expressed via sulking behavior will most often elicit guilt and reparation, that disappointment will elicit sympathy and comforting, and anger will lead to fear and flight tendencies. At a more global level, we hypothesize that, regarding affiliation and distancing functions, anger will lead to the highest distancing, disappointment to low or no distancing and sulking to distancing at a medium level. Therefore, four to five-year-old children took part in an experiment in which they were made to believe that they interact with another child via internet-based video-communication (skype). The interaction was based on a sequence of recorded and partly looped video-clips that were controlled live by the experimenter. This novel and simple method seems promising for developmental research in general as it allows for flexibly manipulating social interactions in a standardized way. Here, after both children have helped the experimenter by painting a picture, the picture of the virtual child gets rejected and they show either disappointed, angry or sulking behavior. We measured children's behavior and decisions in a forced-choice puppet interview regarding their recognition of the virtual child's emotion, their own appraisal and action tendency, as well as their behavior in a distancing task. (Data are not yet analysed).

## Poster Presentation # 21 | 15:45 – 16.30 p.m.

### **The childbirth experiences and healthcare needs of Chinese women: A comparison between Switzerland and China**

Cai Dingcui<sup>1</sup>, Susannah Ravenscroft<sup>2</sup>, Basile Zimmermann<sup>3</sup>, Hong Lu<sup>4</sup>, & Antje Horsch<sup>2,5</sup>

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Background: Chinese migrants have become one of the major overseas migrant groups across the world, and more than 3,000 Chinese women have given birth in Switzerland in the last decade. With the opening of the two-child policy in China, childbirth is not only a business for women and families but demand for its whole society. Childbirth experience of Chinese migrants in Switzerland and the potential impact on their mental health, in comparison to those in China, is unknown. This comparative study focuses on maternity care services, childbirth and perinatal mental issues of Chinese women and their families, in China and as a migrant population in Switzerland. Method: This study includes three sub-studies carried out both in Switzerland and in China. Sub-study 1 involves individual/focus group interviews with women and women's families on their childbirth experiences within six-month postpartum. Sub-study 2 employs individual/group discussions with healthcare workers on childbirth issues of Chinese women and women's families, challenges and obstacles they experience in meeting their needs. Sub-study 3 uses questionnaires to assess aspects of mental health (e.g. childbirth experience and postnatal depression) of women and their partners within one-year postpartum. Results: Data collection is ongoing. Qualitative and quantitative data from women, women's families, and healthcare workers will be analyzed within and across countries for comparison. Discussion: This study aims to provide insights into how maternity care might be improved for meeting the needs of Chinese women and their families in both countries, especially with regard to perinatal mental health issues.

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## Poster Presentation # 22 | 15:45 – 16.30 p.m.

### **Young Children's Representations of Possibility and Logical Inferences: The Role of Active Participation**

Esra Nur Küçük<sup>1</sup>, Fatima Tuba Yaylıcı<sup>1</sup>, & Susan Carey<sup>2</sup>  
Istanbul Sehir University<sup>1</sup> | Harvard University<sup>2</sup>

In the literature, there are many studies that investigated how children understand the concept of possibility. However, few of them examined how children differentiate possibility from impossibility. Also, in acquiring this understanding, the role of several interventions have been tested including directly demonstrating possible vs. impossible events to the child. Yet, the role of the children's active participation in this process and how this differentiation depends on the effect of active participation has never been explored. In the current study, we used a minimalist paradigm to understand young children's representations of possibility. We examined how active participation of three and four-year-olds affect their logical inferences when they are asked to prepare between certain and uncertain outcomes. It is found that active participation increases both 3 and 4-year-olds' performance on the tube task for differentiating possible and impossible future events. Specifically, after children explored the critical apparatus (inverted y-shaped tube with one impossible outcome) themselves, the probability of given correct answer to the tube task increases. These experiments are the first to investigate the effect of active participation on understanding young children's representation of possibility.

## Poster Presentation # 23 | 15:45 – 16.30 p.m.

### Behavioral Correlates of Mirror Self-Recognition

Fiona Pugin<sup>1</sup>, Kira C. Maurer<sup>1</sup>, Norbert Zmyj<sup>2</sup>, & Moritz M. Daum<sup>1</sup>  
Institute of Psychology, University of Zurich<sup>1</sup> | Institute of Psychology, TU Dortmund<sup>2</sup>

Mirror self-recognition (MSR) is typically assessed using the mark test: children detecting a mark on their face via a mirror are considered to recognize themselves. At 18 months, around half of the children pass this test, which is also discussed to reflect a milestone of self-awareness development. However, the dichotomous all-or-none outcome of the mark test offers only limited insight into the development of MSR. The aim of this study is to find specific behavioral patterns which are predictive for passing the mark test. Specifically, 39 children were video-recorded twice (at ages 14 and 18 months) while they were exploring their mirror image and undergoing the mark test. Their behavior was scored using Interact® according to a predetermined scheme, encoding more than ten different types of behavior (frequency and duration). In a first step, we focused on a precursor of MSR, i.e. testing behavior (testing and exploring the mirror image). Preliminary analyses showed that 14-month-olds displayed more testing behavior than MSR and the opposite pattern with 18 months. No relation between frequency of testing behavior at 14 months and MSR at 18 months was found. Furthermore, we plan to study EEG responses to observed pictures of the own and someone else's face to identify neurophysiological markers of MSR development. In summary, the combination of detailed behavioral pattern analysis and EEG may offer insights into not only the mark test, but also into gradual steps of the development of self-recognition in general.

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## Poster Presentation # 24 | 15:45 – 16.30 p.m.

### Memory processes in selective word learning

Julia Brehm<sup>1</sup>, Liridona Hoti<sup>1</sup>, Myriam Sander<sup>2</sup>, Markus Werkle-Bergner<sup>2,3</sup>, Anja Gampe<sup>1</sup>, & Moritz M. Daum<sup>1</sup>  
Department of Psychology, University of Zurich<sup>1</sup> | Max-Planck-Institute for Human Development, Berlin<sup>2</sup> | Universität der Bundeswehr München, Neubiberg<sup>3</sup>

For almost two decades, research on children's willingness to accept novel information from different informants has been of great interest. Over a variety of different tasks, children have shown to accept novel information rather from a reliable than an unreliable informant. However, research into the mechanisms underlying this selectivity is still in its infancy. One possible explanation about how information from these informants is processed differently, are differences in memory processes during learning. In typical learning situations, theta power in the human EEG before stimulus presentation is related to later recall success. This effect has been associated to preparatory processes in the brain. In selective learning, a disruption of these preparatory processes, after being introduced to an unreliable informant, could lead to the observed differences in learning outcome. We currently investigate this question in an anticipated sample of 52 4-year-old children observing an informant that is either correctly or incorrectly labelling familiar objects. Afterwards, the informant presents novel pseudoword-object pairs and learning is assessed via a referent-selection task on a touchscreen. EEG is measured throughout to investigate memory processes before learning. We expect to see an increase in theta power prior to stimulus onset for items successfully recalled compared to items not recalled. Furthermore, we expect children that saw the correct informant to learn more items than the other group. Lastly, we expect an interaction between condition and item recall on theta power. On the poster, preliminary data as well as further theoretical background and implications will be presented.



## Poster Presentation # 25 | 15:45 – 16.30 p.m.

### **Potentially modifiable predictors of adverse neonatal and maternal outcomes in pregnancies with gestational diabetes**

Maria-Christina Antoniou, Leah Gilbert, Justine Gross, Jean-Benoît Rossel, Céline J. Fischer Fumeaux, Yvan Vial, & Jardena J. Puder

Lausanne University Hospital, Centre Hospitalier Universitaire Vaudois

**Aims:** The objective of this study was to identify potentially modifiable predictors of adverse outcomes in pregnancies with gestational diabetes (GDM), and to provide a predictor-based risk stratification. **Methods:** 576 patients with GDM were included. The predictors comprised BMI at the 1st booking after GDM diagnosis, gestational weight gain (GWG), excessive gestational weight gain (EWG), HbA1c at the 1st booking and at the end of the pregnancy, fasting, 1-hour and 2-hour blood glucose values after the 75g oGTT, and maternal medical treatment requirement. **Pregnancy outcomes** included cesarean section requirement, macrosomia, large and small for gestational age (LGA, SGA), hypoglycemia, prematurity, hospitalisation in the neonatal unit, respiratory distress requiring hospitalization, and Apgar score at 5 min.

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## Poster Presentation # 26 | 15:45 – 16.30 p.m.

### **Investigating prenatal social support as a protective factor: Does it moderate the relationship between prenatal anxiety and birth outcomes?**

Mathilde Duroux<sup>1</sup>, Suzannah Stuijtzand<sup>2</sup>, Vania Sandoz<sup>2</sup>, & Antje Horsch<sup>2</sup>

Université de Fribourg<sup>1</sup> | Institute of Higher Education and Research in Healthcare (IUFRS), University of Lausanne<sup>2</sup>

**Background:** Although pregnancy is often perceived as a happy and fulfilling time, it can also be a time of stress and anxiety. Studies show that maternal anxiety during pregnancy may act as a risk factor for adverse birth outcomes (e.g., low birth weight, preterm birth, or low Apgar Score). Social support during pregnancy, on the other hand, has been found to be an important protective factor from the effect of stress (stress buffering effect), and to impact positively the well-being, and the health of pregnant women. **Objective:** To investigate whether social support acts as a protective factor, moderating the relationship between anxiety and neonatal and obstetrical birth outcomes (gestational age (GA), birth weight (BW), 5-minute Apgar Score, and mode of delivery). **Method:** Pregnant women and their partners (optional) from the Lausanne Wellbeing Cohort Study filled in questionnaires (the Hospital Anxiety and Depression Scale – HADS, and the Medical Outcome Study Social Support Survey – MOS-SSS) and personal and sociodemographic information during the third trimester of pregnancy. Birth outcome data was extracted from postpartum medical records. **Results:** Regressions will be conducted to investigate the research question. Analyses are still ongoing but will be ready to present in time for the conference. **Conclusion:** If social support is found to moderate the relationship between anxiety and birth outcomes, this work may enhance the practice of screening for anxiety during pregnancy and provide insight into the development of social interventions for anxious pregnant women. It may also protect infants from potential complications at birth.

## Poster Presentation # 27 | 15:45 – 16.30 p.m.

### **Inclusion in Early Childhood Care and Education: An Observational Study of Children's Participation in Free Play**

Matthias Lütolf & Simone Schaub  
University of Applied Sciences in Special Needs Education

Inclusion of children with disabilities in early childhood care and education benefits all children. However, their implementation in Switzerland is a young phenomenon and not well researched. In this study, we explore the social participation of children with disabilities in nine regular daycare facilities in Zurich. Social participation was operationalized on the basis of two indicators: (1) engagement in play and group activities, and (2) social interactions. Children with disabilities/developmental delays (i.e., focus group, FG, n = 10) were observed during free play and compared with their typically developing peers (i.e., control group, CG, n = 11). All children were videotaped individually for 30 minutes. Engagement and social interactions were coded from videotape using momentary time sampling. Overall, all the children were highly engaged in free play. However, nonparametric analyses showed less active, and more passive engagement in the FG. In particular, the FG was less often involved in group play, and more often in transition between activities. The increased passivity was also evident in the interactions. Children of the FG were less often the initiators of an interaction than children of the CG. In contrast, there were no differences in the behavior of peers towards a child with or without disability. These and further analyses will provide indications of means of improving social participation of children with disabilities in daycare.

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## Poster Presentation # 28 | 15:45 – 16.30 p.m.

### **Mobilizing and developing interactional competences during encounters with parents in childcare facilities**

Stéphanie Garcia, Marianne Zogmal, & Laurent Filliettaz  
University of Geneva

Our contribution focuses on work activities and professional development of childcare professionals with regard to parent-oriented practices. In the field of early childhood education, establishing partnership with parents is regarded as an important ingredient of professional experiences. But how are such partnerships accomplished in ordinary practices? The abundant literature dedicated to parents-educators relationships stresses a number of difficulties faced by early childhood educators in establishing relationships with parents. Elaborating on this literature, our research approach argues for 1) the need to better understand the implementation of this relationship and the specific interactional competences mobilized; 2) the importance of developing a continuous training approach that supports and develops the activity of professionals. This research is based on an interactional perspective in work analysis (Filliettaz, de Saint-Georges & Duc, 2008; Filliettaz, 2014) and is carried out as a research-intervention approach. In collaboration with researchers, professionals in early childhood education are trained to experience a multimodal interaction analysis of their encounters with parents, based on video recordings of naturally occurring work situations. They elaborate the meaning they attribute to their own practices through collective analysis of the video material. The analysis of interactions is mobilized as a possible means for professional development. In this contribution we will focus on the topic of multi-activity in arrival and departure situations and how parent-oriented practices are interlinked with educational activity with children. Our contribution will describe how educators face this complexity and how they reflect on their interactional competences during collective video analysis.

## Poster Presentation # 29 | 15:45 – 16.30 p.m.

### **Supporting children's language capacities through the development of professional competences in early childhood education**

Laurent Fillietaz, Marianne Zogmal, Edouard Gentaz, Laura Alaria, Glais Sales Cordeiro, & Julie Franck  
University of Geneva

Since 2016, an interventional and interdisciplinary research project has been developed in collaboration with an early childcare facility in Geneva, based on 4 sites and involving 85 professionals and 180 children of preschool age. For young children, the acquisition of language capacities is of foreground importance. A great body of research has indeed shown that language capacities constitute one of the major predictors of future academic achievement. This intervention project combines the contributions of child development psychology, didactics of languages, and adult and vocational education. It is divided in three parallel parts that are strongly interdependent: a) the assessment of the children's language capacities; b) the analysis of the educational activities promoting the comprehension of narratives supported by children's storybooks; c) the co-analysis of the activities performed by the professionals, in a perspective of adult professional development. For this project, three different "workshop cycles" are prepared, realized and analyzed by the professionals, together with the scientific researchers. The project is based on two sets of expectations. The first set predicts that the setting up of educational activities focusing on the creation of a rich interactional environment leads to a greater evolution of the language capacities of one to five year old children who attend early childcare institutions. The second set of expectations predicts that when educators are involved in procedures carried out together with researchers, to design, accomplish and analyze educational activities, their professional competences develop. This has beneficial effects for the children and for professional development within institution.

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## Poster Presentation # 30 | 15:45 – 16.30 p.m.

### **Evaluation of a training based on pretend play designed to promote the development of socio-emotional competence in 5-year-olds: Exploratory study**

Sylvie Richard<sup>1,2</sup>, Philippe Gay<sup>1</sup>, Anne Clerc-Georgy<sup>1</sup>, & Edouard Gentaz<sup>2</sup>  
University of Teacher Education Valais<sup>1</sup> | University of Geneva<sup>2</sup>

The objective of this research was to evaluate the effects of a pretend play based training program designed to promote the development of socio-emotional competences. Two children's classes composed of a total of nineteen children aged 5 years were evaluated using a pre-test, training and post-test paradigm. One class represented the "passive" control group and the second was the experimental group. During the training phase, the experimental group received a program (eleven sessions weekly) during class hours that focused on socio-emotional competences - such as understanding emotions, regulating negative emotions and prosocial behaviour - led by the principal researcher, while the "passive" control group followed the regular school program provided by the classroom teacher, which included an hour of pretend play on a weekly basis. The level of socio-emotional competences was assessed in the pre-test and post-test using eight measures. The results show a partial improvement in the ability to understand emotions and regulate negative emotions in children who have benefited from the training program. However, no significant progress was observed in the two tasks measuring prosocial behaviour for the experimental group. Although the results of this exploratory study are promising, the effects generated by this training program should be replicated on a larger scale and under realistic conditions by directly offering teachers to test this program in their classrooms.

## Poster Presentation # 31 | 15:45 – 16.30 p.m.

### **START Project: The effect of postpartum PTSD on mother-child interaction**

Suzannah Stuijtzand<sup>1</sup>, Vania Sandoz<sup>1</sup>, Camille Deforges<sup>1</sup>, Mathilde Morisod Harari<sup>2</sup>, & Antje Horsch<sup>1,3</sup>  
Institute of Higher Education and Research in Healthcare (IUFERS), University of Lausanne<sup>1</sup> | Department of Child and Adolescent Psychiatry, Lausanne University Hospital<sup>2</sup> | Switzerland and Neonatology Service, Woman-Mother-Child Department, Lausanne University Hospital and University of Lausanne<sup>3</sup>

Background: Postpartum Post Traumatic Stress Disorder occurs in 2-4% women, but 18.95% in high risk samples. Maternal PTSD symptoms have been linked to less optimal mother-infant relationships. Parent-child relationships play a significant role in the development of infants' self-regulatory experiences. Variations in maternal care during the early postpartum period may permanently alter the infant's systems that modulate stress or enable social adaptation. The mechanisms of intergenerational transfer of stress and trauma from parent to infant are under-researched. The Swiss TrAumatic biRth Trial (START) project aims to investigate the association between postpartum PTSD and mother-child interaction as one potential mechanism. Method: Following an emergency caesarean-section 144 mothers, their newborn and their partners will be followed-up over the first week, at 6 weeks, and 6 months postpartum. At  $\leq 1$  week, 6 weeks and 6 months postpartum both parents will complete the Mother/father Infant Bonding scale. At 6 months postpartum mothers and their infant will take part in free-play interaction session. Interactions will be videotaped and coded using the Emotional Availability Scales. To assess PTSD symptoms, at 6 weeks and 6 months both parents will complete the self-report PTSD checklist (PCL-5) and take part in a semi-structured clinical interview (CAPS-5). Results: The relationships between these measures will be assessed. Data collection is ongoing. Discussion: The results will bring in an increased understanding about the intergenerational transfer of stress and trauma from parent to child following traumatic childbirth. Such Insights may assist the development of interventions to work directly into these relationships.

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## Poster Presentation # 32 | 15:45 – 16.30 p.m.

### **Long-Term Effects of Early Family Risk on Children's Maladjustment – What protects?**

Corina Wustmann Seiler<sup>1</sup>, Fabio Sticca<sup>2</sup>, Olivia Gasser-Haas<sup>2</sup>, & Heidi Simoni<sup>2</sup>  
Zurich University of Teacher Education (PH Zurich)<sup>1</sup> | Marie Meierhofer Children's Institute, Zurich<sup>2</sup>

Earlier cross-sectional studies showed that children's ability to tell coherent and enriched narratives, as well as a high early childcare process quality may buffer the negative impact of early family risk on children's maladjustment (e.g., Müller et al., 2014; Wustmann Seiler et al., 2017). However, longitudinal evidence for various protective factors is lacking. The present study investigated long-term effects of early family risk on children's maladjustment from early childhood (age 3 to 5 years) to preadolescence (age 9 to 11 years) with a focus on protective processes within the child, the child's familial and extra-familial environment. A total of 292 (T1), 238 (T2), and 189 (T3) children from 24 childcare centers participated in the study. Family risks were assessed at T1 (mean age = 2.81 years), while socio-emotional outcomes (e.g., internalizing and externalizing problems) were assessed at T2 (mean age = 3.76 years) and T3 (mean age = 9.69 years). Childcare quality and mental representations (i.e., self-efficacy and self-concept) were also measured at T2. Several results supporting for the protective role of early childcare quality, particularly high-quality teaching and interaction, were found. In contrast, no consistent support was found for the longitudinal protective role of self-efficacy and positive self-concept. However, a consistent pattern of both promotive and protective effects of mental representations was found in the short term. Findings point to the importance of early childcare quality and mental representations for socio-emotional outcomes in young children at risk.

## Poster Presentation # 33 | 15:45 – 16.30 p.m.

### **Development and validation of the Lausanne Infant Crying Stress Paradigm: A stress paradigm for the early postpartum period**

Vania Sandoz<sup>1</sup>, Nadine Messerli-Bürgi<sup>2</sup>, Camille Deforges<sup>1</sup>, Suzannah Stuijtzand<sup>1</sup>, Nicole Sekarski<sup>3</sup>, Ulrike Ehlert<sup>4</sup>, & Antje Horsch<sup>1,5</sup>

Institute of Higher Education and Research in Healthcare (IUFERS), University of Lausanne<sup>1</sup> | Clinical Child Psychology & Biological Psychology, University of Fribourg<sup>2</sup> | Paediatric Cardiology Unit, Woman-Mother-Child Department, Lausanne University Hospital<sup>3</sup> | Department of Clinical Psychology and Psychotherapy, University of Zurich<sup>4</sup> | Switzerland and Neonatology Service, Woman-Mother-Child Department, Lausanne University Hospital and University of Lausanne<sup>5</sup>

Introduction: Following traumatic childbirth, 19% of mothers develop postpartum posttraumatic stress disorder (pPTSD). Mothers with PTSD can show disrupted physiological stress reactivity. Evidence suggests that maternal biological changes could be intergenerationally transmitted via early postnatal care and impact child developmental and biological outcomes. To our knowledge, maternal physiological stress reactivity has not been studied in early postpartum, mainly because no validated stress paradigm exists. This study aims to: 1. to validate the Lausanne Infant Crying Stress Paradigm (LICSP) within pPTSD low-risk mothers at ≤5 days postpartum; 2. to compare physiological stress responses within pPTSD low- vs. high-risk mothers. Methods: Pre- and post-stressor (i.e., LICSP) salivary cortisol samples, HRV measured at rest, under stress and during recovery, and a subjective anxiety scale assess maternal stress reactivity at ≤5 days postpartum. Psychological vulnerabilities are measured via self-report questionnaires. A power analysis estimated n=20 per group to have 80% power ( $\alpha=0.05$ ) to detect a between-group difference. Results: Data collection is ongoing (nlow-risk = 7, nhigh-risk = 11), but preliminary results will be discussed. Maternal stress reactivity following LICSP will be assessed in pPTSD low- and high-risk mothers and then, their stress responses will be compared. Discussion: Better understanding of physiological mechanisms occurring in early postpartum is primordial for families at risk of pPTSD. This could lead to the identification of risk factors and biomarkers, to a better comprehension of mechanisms involved in pPTSD, and to the development of evidence-based interventions to prevent pPTSD related adverse consequences on mothers and children.

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## Poster Presentation # 34 | 15:45 – 16.30 p.m.

### **Children's stress regulation capacity and mental health: The study protocol**

Anaëlle Leuab, Mareike Groene, Marius Rubo, & Nadine Messerli  
University of Fribourg

Stress exposure influences the development of stress regulation capacity (SRC) during early childhood. Maternal SRC is known to support the child's SRC under stress exposure and positively contributes to the child's mental health at school age, but evidence on its impact at preschool age is still scarce. The aim of the research program is to investigate the development of stress regulation, its influencing factors and its relationship to mental health in preschool children. The program applies a cross-and longitudinal approach on Swiss children at the age of 3-5 years and uses a multi-informant approach, lab-based and home-based assessment techniques during the period of kindergarten entry.



## Flash Presentation | 16:30 – 16:40 p.m.

### **Impact of sleep after a traumatic childbirth on posttraumatic stress disorder development: A prospective study**

Camille Deforges<sup>1,2</sup>, Vania Sandoz<sup>1,2</sup>, Suzannah Stuijzand<sup>1,2</sup>, Kate Porcheret<sup>3</sup>, & Antje Horsch<sup>2</sup>  
Institute of Higher Education and Research in Healthcare (IUFRS)<sup>1</sup> | University of Lausanne<sup>2</sup> | Monash University Melbourne<sup>3</sup>

39% of women develop a postnatal posttraumatic stress disorder (pPTSD) following their emergency caesarean section (ECS). pPTSD causes maternal distress and affects the family, from development of the child to the couple relationship. Intrusive traumatic memories (ITM) are one of the key symptoms of pPTSD. Early interventions targeting memory consolidation disruption immediately after a traumatic event seem to reduce both IM and pPTSD development. As sleep is highly involved in emotional memory enhancement and memory consolidation, it may be important in the development of ITM. However, associations between sleep immediately following a traumatic event, ITM and pPTSD development remains unclear. The Swiss TrAumatic biRth Trial project aims, inter alia, to study the impact of sleep after a traumatic childbirth on both ITM during the first postpartum week and pPTSD symptoms development. In this prospective study, 70 women will be recruited within the 6 hours following their ECS. An actigraph will record their sleep over 5 days. Women will also report their sleep and traumatic intrusions in a one-week daily diary. After 6 weeks, PTSD will be assessed through clinical interview and self-reported questionnaire. Data collection is currently ongoing. Chronotype, prepartum and postpartum sleep quality as well as trauma-related sleep disturbance will also be assessed, and considered in our analysis. Results will demonstrate whether sleep in the first hours following an ECS is a risk factor for ITM and pPTSD development. They will also guide the development of early interventions based on sleep regulation, aiming at preventing pPTSD.

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## Flash Presentation | 16:40 – 16:50 p.m.

### **Preschool Children with Developmental Delay: The Standard of Care evaluated**

Michael von Rhein<sup>1</sup>, Aziz Chaouch<sup>2</sup>, Corina Müllner<sup>3</sup>, Patricia Ferro<sup>3</sup>, & Jon Caflisch<sup>1</sup>  
University Children's Hospital Zürich<sup>1</sup> | Lausanne University Hospital<sup>2</sup> | University of Zürich<sup>3</sup>

Developmental delay (DD) with a prevalence of 15 percent of all children is one of the most frequent disorders in early childhood affecting annually thousands of individuals in Switzerland. Early identification of children with DD is critical to ensure appropriate therapeutic interventions, to support the families and finally to prevent chronic (i.e., life-long) health, educational and social consequences. It is widely accepted that early intervention programs are both ethically mandatory and cost-effective for the society on a long-term perspective. However, we note that there is a large paucity of information about supply, demand and effectiveness of services for children with DD in Switzerland. In the Canton of Zurich, there is a centrally organized registration of all children with DD in need of early interventions at the Unit of Special Needs Education (USNE), based at the University Children's Hospital Zurich and the Center for Social Pediatrics of the Kantonsspital Winterthur. We have collected and analyzed data from all children (age 0-4) admitted to the USNE in 2017 (n=2033) and will present descriptive data on demographic and clinical features of the children (e.g. age at admittance, developmental profiles, reasons for early support, medical diagnoses, regional distribution, sociodemographic and language background, and quality of the supporting network), pathways of access, and patterns of service usage. Our analyses provide comprehensive insights into the structures and the utilization of health and educational care of children with DD in the Canton of Zurich and give an overview on the current practice with respect to early interventions in the Canton of Zurich. Furthermore, we report on the status of the establishment of a sustainable registry of services for DD children based on the USNE database.

## Flash Presentation | 16:50 – 17:00 p.m.

### **Educational Outcomes Depend Both on Visual and Multisensory Control of Selective Attention**

Nora Turoman<sup>1,2</sup>, Ruxandra Tivadar<sup>1,2</sup>, Chrysa Retsa<sup>1,2</sup>, Micah Murray<sup>1,2,3</sup>, Gaia Scerif<sup>4</sup>, & Pawel Matusz<sup>1,2,3,5</sup>  
University of Lausanne<sup>1</sup> | Lausanne University Hospital<sup>2</sup> | Vanderbilt University<sup>3</sup> | University of Oxford<sup>4</sup> | University of Applied Sciences Western Switzerland (HES-SO) Valais<sup>5</sup>

Visual attention skills shape learning, but how do these abilities interact with multisensory processes that must contribute to shaping literacy and numeracy skills? We investigated how involuntary multisensory integration and top-down visual attention develop together during primary school and how these processes contribute to reading and basic maths. We recorded EEG from Swiss 1st-grade (aged 4-5) 3rd-grade (aged 6-7) and 5th-grade (aged 8-9) children, and adults, while they searched for colour- defined targets, preceded by colour and colour-sound distractors. Spatial-cueing effects and N2pc component (analysed canonically and using electrical neuroimaging [EN]) served as behavioural and EEG markers of visual attention capture. Literacy and numeracy were measured with a standardised test (EDA 4-11). 3rd-graders showed adult-like top-down attentional control over visual stimuli but only 5th-graders showed additional multisensory enhancement of attention capture. In adults EN revealed stable patterns (template maps) of lateralised EEG activity in N2pc time-window that were modulated by multisensory and visual processes. In children, adult-like N2pc's (154–300ms over PO7/8) were absent, but EN revealed presence of adult maps in this time- window. Visual and multisensory processes modulated age-specific maps in N2pc time- window in both 3rd- and 5th- graders. Crucially, these EEG patterns (but not behavioural markers) correlated with educational outcomes, with age determining the sign and specificity of relationships. Our study is the first to track concomitant development of visual and multisensory control of selective attention, and suggests that age determines which of these control processes attention relies on in supporting learning. These findings showcase how combining rigorous yet naturalistic paradigms with robust multivariate signal analyses and real-world variables can help clarify and support processes underpinning learning in the real (multisensory) world.

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## Flash Presentation | 17:00 – 17.10 p.m.

### **The influence of parental smartphones on maternal and paternal sensitivity to the infant**

Agnes von Wyl, Jessica Pehlke-Milde, Larissa Schneebeli, Michael Gemperle, Ramona Koch, & Katrin Braune-Krickau  
Zürich University of Applied Sciences

Background: The omnipresence of smartphones has changed social interactions. Interruptions caused by technology (called “technoference”, McDaniel, 2015), especially through mobile phone use, negatively impact relationships. In the family context, parental smartphone use can disrupt communication between parents and children. This may be especially relevant in the first months of life, when the quality of parent-child interaction is crucial for the infant’s early emotional and cognitive development, with parental sensitivity playing a critical role. The aim of our study is to explore various aspects of parental smart phone use and how they affect parental sensitivity and thereby early parent-child-interaction. Important psychological factors in the postpartum period are taken into account as potential mediators. Method: In our longitudinal observational study, we follow over 90 families from the last trimester of pregnancy to 3 months postpartum. Data is collected at three time points and a combined quantitative-qualitative approach is used. We assess different aspects of smartphone use, such as average daily use and kind of use, subjective attitude towards smartphone use, technoference and immersion. Parental sensitivity is assessed based on a video-taped free-play session. In addition, we assess parental impulsivity and symptoms of depression and anxiety. Qualitative interviews will provide in-depth exploration of mothers’ perception of smartphone use and its effects on their interaction with their infant. First results and discussion: We will present first results of the assessment t0 during pregnancy. Discussion will focus on smartphone use of expectant parents.