

# STEFANIA VICTORITA VACARU

## *Curriculum vitae*

New York University Abu Dhabi  
Department of Psychology  
Saadyat Island, Abu Dhabi, United Arab Emirates  
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### Education

#### **Donders Institute for Brain, Cognition and Behavior, Radboud University (NL) - PhD, 2021**

- Dissertation Advisor: Prof. Dr. Sabine Hunnius

#### **Brain & Mind Institute, Western University, London Ontario (CA) – Visiting PhD, 2019**

- Host: Prof. Dr. Bruce Morton

#### **Vrije Amsterdam (NL)- MSc, 2015**

- Major: Clinical and Developmental Psychopathology
- Thesis Advisor: Prof. Dr. Paula Sterkenburg & Prof. Dr. Carlo Schuengel

#### **Turin University (IT)- BSc, 2012**

- Major: Psychology
- Thesis Advisor: Prof. Dr. Neppi Modona

### Academic Positions

- Postdoc fellow, NYU Abu Dhabi, Dep. of Psychology, 2023-ongoing
- Visiting scholar, Vrije Universiteit Amsterdam, Clinical Child and Family Studies Dep., 2022-2024
- Visiting postdoc, UC Davis, Dep. of Psychology, Aug-Dec 2022
- Postdoc fellow, Donders Institute for Brain, Cognition and Behavior, Radboud University, 2021-2023

### Fellowships and Awards

- Donders Institute (NL)-BMI London Ontario (CA) Exchange Trainee Program – Erasmus+, 2021
- Internationalization grant Faculty of Social Sciences, Radboud University (NL), 2017, 2018
- Best talk award at the Donders Discussion, Radboud University (NL), 2019
- Best Pitch and Innovation Award at the Neuroscience Symposium, EPFL (Lausanne, CH), 2018

### Research Grants

- Neurobiological Signatures of Attachment: Implications for Interpersonal Behavior and Stress Regulation, NYU Research Catalyst Grant [*with Prof. Dr. Waters*], NYU, \$ 12,945, 2023.
- A cross-cultural investigation into the biology of stress in children: hair cortisol concentrations in the Netherlands and US, Royal Netherlands Academy of Arts and Sciences Van Der Gaag, € 5,400, 2022.
- Neurobiological mechanisms underlying the effects of attachment on development across species, International Society for Developmental Psychobiology, Columbia in the City, \$ 3,800, 2022.

### Managing Activities and Boards

- Project manager, COVID-19 and Perinatal Experiences, EU consortium, 2020-2024
- Co-chair of the Radboud Postdoc Initiative, RadboudUMC (NL), 2021-2023
- Board member of the Educational Committee, Radboud University (NL), 2016-2020
- Ph.D. chair & treasurer of the PhD Council, Donders Institute (NL), 2017-2020
- Board member of the Educational Committee, VU Amsterdam (NL), 2013-2015

## Peer-reviewed Publications

- Rheinheimer, N., **Vacaru, S. V.**, & de Weerth, C. (*accepted, Journal of Environmental Psychology*). The effect of outdoor walking and maternal proximity on infant and maternal physiological and behavioral outcomes.
- Brett, B. E., **Vacaru, S.V.**, Beijers, R., & de Weerth, C. (2024). Infant colic and HPA axis development across childhood. *Psychoneuroendocrinology*.
- Rheinheimer, N., **Vacaru, S. V.**, van Immerseel, J. C., Kühn, S., & de Weerth, C. (2024). Infant care: predictors of outdoor walking, infant carrying and infant outdoor sleeping. *International Journal of Environmental Research & Public Health*, 21(6), 694.
- Vacaru, S. V.**, Lau, L. P., Frederiks, K., Sterkenburg, P. S., & Barakova, E. (2024). Selecting optimal wearables for measuring physiological arousal in robot-delivered mindfulness-based exercises. *Advanced Robotics*.
- Rutkowska, J. M., Ghilardi, T., **Vacaru, S. V.**, van Schaik, J. E., Meyer, M., Hunnius, S., & Oostenveld, R. (2024). Optimal processing of surface facial EMG to identify emotional expressions: A data-driven approach. *Behavior Research Methods*.
- Putnam, S. P., Sehic, E., ...Gartstein, M. A., & Lira Luttges, B. (2024). The global temperament project: parent-reported temperament in infants, toddlers, and children from 59 nations. *Developmental Psychology*.
- Vacaru, S. V.**, van Schaik, J. E., Spiess, L., & Hunnius, S. (2024). No evidence for modulation of facial mimicry by attachment tendencies in adulthood: An EMG investigation. *The Journal of Social Psychology*.
- Vacaru, S. V.**, Parenteau, A., Yi, S., Silvers, J., Hostinar, C., & de Weerth. (2023). Adolescents' hair cortisol concentrations during COVID-19: Evidence from two longitudinal studies in The Netherlands and the United States. *Developmental Psychobiology*.
- Vacaru, S. V.**, Scatolin, S., van den Heuvel, M., Beijers, R., & de Weerth, C. (2023). Breastfeeding and room-sharing during COVID-19 and the role of perinatal healthcare support. *Early Human Development*.
- Willemsen, Y., **Vacaru, S.V.**, Beijers, R., & de Weerth, C. (2023). Are adolescent nutritional behaviors predicted by a history of maternal caregiving and child inhibitory control? *Appetite*.
- Vacaru, S. V., van Wingerden, E., L. Holstege, & Sterkenburg, P. S. (2023). Hey Google! Intelligent personal assistants and well-being in the context of disability during COVID-19. *J of Intel Disability Res.*
- Willems, L. D., **Vacaru, S. V.**, Hokke, H., Sterkenburg, P. S. (2022). A scoping literature review on compassion-focused therapy for individuals with intellectual disability. *OBM Integrative & Complementary Medicine*.
- Schröer, L., Çetin, D., **Vacaru, S. V.**, Addabbo, M., van Schaik, J. E., & Hunnius, S. (2022). Infants' sensitivity to emotional expressions in actions: The contributions of parental expressivity and motor experience. *Infant Behavior & Development*.
- Bruinhof, N., **Vacaru, S. V.**, van den Heuvel, M. I., de Weerth, C., & Beijers, R. (2022). Prenatal hair cortisol concentrations during the COVID-19 outbreak: Associations with maternal psychological stress and infant temperament. *Psychoneuroendocrinology*.
- van den Heuvel, M. I., **Vacaru, S. V.**, Boekhorst, M. G., Cloin, M., van Bakel, H., Riem, M. M., ... & Beijers, R. (2022). Parents of young infants report poor mental health and more insensitive parenting during the first Covid-19 lockdown. *BMC Pregnancy & Childbirth*.
- Vacaru, S. V.**, Beijers, R., & de Weerth, C. (2022). Internalizing symptoms and family functioning predict adolescent depressive symptoms during COVID-19: A longitudinal community sample. *PlosOne*.
- Vacaru, V. S.**, Alfaro, A. U., Hoffman, N., Wittich, W., Stern, M., ... & Sterkenburg, P. S. (2022). Applicability of a Novel Attunement Instrument and Its Relationship to Parental Sensitivity in Infants With and Without Visual Impairments. *Frontiers in Psychology*.
- Vacaru, S. V.**, Ma, S., van Schie, H. T., & Hunnius, S. (2022). Eating in Synch: An investigation of parent-infant behavior coordination during feeding interactions. *Infant Behavior & Development*.

- Vacaru, S. V.**, Beijers, R., Browne, P.D., Cloin, M., van Bakel, H., van den Heuvel, M.I., de Weerth, C. (2021). The risk and protective factors of heightened prenatal anxiety and depression during the COVID-19 lockdown. *Scientific Reports*.
- Vacaru, S. V.**, van Schaik, J. E., Spiess, L., & Hunnius, S. (2021). No evidence for modulation of facial mimicry by attachment tendencies in adulthood: an EMG investigation. *J of Social Psychology*.
- Alfaro, A. U., **Vacaru, S. V.**, Wittich, W., & Sterkenburg, P. S. (2021). Identifying when children with visual impairment share attention. *Infant Behavior & Development*.
- Lievensse, P., **Vacaru S. V.**, Kruithof, Y., Bronzewijker, N., Doeve, M., & Sterkenburg, P. S. (2021). A serious game intervention to enhance social-emotional and behavioral development in children with visual impairments. A parallel randomized controlled trial. *Child: Care, Health & Development*.
- Vacaru, S. V.**, van Schaik, J. E., de Water, E., & Hunnius, S. (2020). Five-year-olds' facial mimicry following social ostracism is modulated by attachment security. *PlosOne*.
- Addabbo, M., **Vacaru, S. V.**, Meyer, M., & Hunnius, S. (2020). 'Something in the way you move': Infants are sensitive to emotions conveyed in action kinematics. *Developmental Science*.
- Vacaru, S. V.**, van Schaik, J. E., & Hunnius, S. (2019). The modulation of facial mimicry by attachment tendencies and their underlying affiliation motives in 3-year-olds: An EMG Study. *PlosOne*.
- Lievensse, P., **Vacaru, S. V.**, Liber, J., Bonnet, M., & Sterkenburg, P. S. (2019). 'Stop bullying now!' The effectiveness of a serious game for teachers in promoting autonomy-supporting strategies for disabled adults. A randomized controlled trial. *Disability & Health Journal*.
- Vacaru, S. V.**, Sterkenburg, P. S., & Schuengel, C. (2018). Self-concept in institutionalized children with disturbed attachment: The role of exploratory behaviors. *Child: Care, Health & Development*.
- Sterkenburg, P. S., & **Vacaru, S. V.** (2018). The effectiveness of a serious game to enhance empathy for care workers for people with disabilities: a randomized controlled trial. *Disability & Health Journal*.

## Under Review

- Vacaru, S.V.**, Eckermann, H., Graat, G., & de Weerth, C. (*under review, Current Psychology*). A healthy start: the contribution of caregiving quality to child physical health from 0-14 years.
- Vacaru, S.V.**, Puertas-Gonzales, J., Willemsen, Y., Houtman, T., Klein, P., Gordon, G., & de Weerth, C. (*under review, Child Development*) Adolescents' risk-taking behaviors, curiosity, and early attachment security.
- Vacaru, S.V.**, Waters, T.E.A., & Hunnius, S. (*under review, Scientific Reports*). Attachment is in the Pupil of the Beholder: A Pupillometry Study on Emotion Processing.
- Dugan, KA., Kunkel, JJ., **Vacaru, S.V.**, Fraley, C., Waters, T.E.A., McGue, M., Krueger, RF., & Roisman, GI. (*under review, Journal of Personality*). Genetic and environmental contributions to the associations between attachment styles and mental and physical health.
- Gravesteyn B.Y., Vacaru, S.V., et al. (*under review, Midwifery*), Choosing for a homebirth during COVID-19 lockdown in the Netherlands, who and why: a national prospective study.
- Vacaru, S. V.**, Ghilardi, T., van Schaik, J. E., & Hunnius, S. (*under review, Cognition & Emotion*). Responding to others' affective states with congruent facial responses. A developmental investigation.
- Frederiks, K., **Vacaru, S.V.**, Lau, L., Barakova, E., Sterkenburg, P.S. (*under review, Computers in Human Behavior*). Psychophysiological stress reduction through robot-guided mindfulness for persons with (visual and) intellectual disabilities: a randomized controlled trial.

## Selected Works in Progress

- A developmental meta-analytic review of early attachment relationships supporting physiological stress regulation, Preregistration [OSF](#)
- Experimental study examining the neurophysiological profiles of autonomic stress regulation during attachment-related narratives in two separate samples of healthy adults
- A meta-analysis of biobehavioral synchrony's effects on cognition, Preregistration [OSF](#)

## Selected Conference and Invited Presentations

- “A healthy start: Examining the contribution of caregiving quality to child physical health from birth to 14 Years,” *International Congress on Infant Studies*, Glasgow, UK, Jul 8-11, 2024.
- “State-of-the-Art and Future Directions of (Infant) Facial Electromyography,” *International Congress on Infant Studies*, Glasgow, UK, Jul 8-11, 2024.
- “In sync, we learn! A meta-analysis of biobehavioral synchrony's effects on cognition,” *Dutch Society for Developmental Studies*, Tilburg, NL, May 30-31, 2024.
- “International Evidence for the Enduring Impact of Sensitive Caregiving on Child Development and Family Dynamics,” *International Attachment Conference*, Rouen, FR, Jul 15-17, 2024
- “From secure base to positive risks: The interplay between attachment and curiosity across 14 years,” *International Attachment Conference*, Rouen, FR, Jul 15-17, 2024.
- “Self-compassion: In dire need of assessment tools across the broader spectrum of cognitive functioning,” *International Attachment Conference*, Rouen, FR, Jul 15-17, 2024.
- “Determinants of maternal breastmilk cortisol increase: prenatal dispositional and postnatal situational factors,” *Society for Research in Child Development*, Salt Lake City, US, Mar 23-25, 2023.
- “Neurobiological mechanisms underlying the effects of attachment on development across species,” *International Society for Developmental Psychobiology*, San Diego, US, Nov 9-11, 2023.
- “COVID-19 effects on the new generation & individual talk on parent-infant interaction modalities,” *International Congress on Infant Studies*, Ottawa, CA, Jul 7-10, 2022.
- “Attunement in parent-infants with visual impairments,” *International Low Vision Conference*, Dublin, UK, Jul 5-8, 2022.
- “Parent-infant attunement in infants with and without visual impairments,” *World Health Association on Infant Mental Health*, Brisbane, Australia, Jun 23-27, 2021 (online).
- “Empathy and the development of social-emotional mimicry,” *Dutch Society for Developmental Studies*, Wageningen, NL, May 18-19, 2021 (online).
- “The impact of COVID-19 in pregnant woman, fathers and their offspring,” *Society for Research in Child Development*, Apr 7-9, 2021 (online).
- “On the links between social facial mimicry, empathy, and moral development,” *International Attachment Conference*, Vancouver, CA, July 18-20, 2019.
- “Facial electromyography in young children and its relation to attachment and cognitive control,” *International Congress on Infant Studies*, Philadelphia, USA, Jun 30- Jul 3, 2018.
- “Developmental social mimicry and empathy across childhood and adulthood,” *Jean Piaget Society*, Amsterdam, NL, May 31- Jun 2, 2018.
- “Why we mimic: exploring the role of attachment and empathy,” *Dutch Society for Developmental Studies*, Wageningen, NL, May 15-16, 2018.
- “Adult attachment modulates pupil size and facial mimicry,” *Society for Affective Science*, Los Angeles, US, Apr 26-28, 2018.
- “A protocol for assessing facial mimicry,” *Conference on Infant and Early Child Develop*, Lancaster, UK, Aug 25-27, 2016.
- “The role of parent-child interactions for child social development,” *NYU Langone Health*, invited talk by Prof. Dr. Thomason, New York City, USA, Apr 21, 2021.
- “Serious games design: development, effectiveness in children with disabilities,” *The University of Montreal*, invited talk by Prof. Dr. Wittich, Montreal, CA, Jul 27, 2019.
- “Social facial mimicry, empathy, and moral development,” *UBC Center for Infant Cognition, Vancouver University*, invited talk by Prof. Dr. Hamlin, Vancouver, CA, Jul 18, 2019.
- “Experimental investigations of facial electromyography in young children,” *Munich Center for Neurosciences, Brain, and Mind*, invited talk by Prof. Dr. Paulus, Munich, GE, Aug 2-4, 2019.
- “The development of social facial mimicry,” *Harvard University* invited talk by Prof. Dr. Spelke, Cambridge, USA, Jun 25, 2018.

## Teaching and Mentoring

### Course design and coordination

“The attachment nest: Interdisciplinary Understanding of Attachment and Human Development,” (3ect) *Vrije Universiteit Amsterdam*, NL, 2023, 2024.

### Lectures

“Interpersonal synchrony,” Course: Developmental Psychobiology (graduate level), Prof. Dr. de Weerth, *Radboud University*, NL, 2021.

“The development of social relations from an attachment perspective,” Course: Social Relations (graduate level), Prof. Dr. Lansu, *Radboud University*, NL, 2019.

“Human attachment and socio-affective development,” Course: Cognitive Neuroscience (undergraduate level), Dr. Fabbri, *Groningen University*, NL, 2019.

### Seminars

Academic Skills for Psychologists (undergraduate level), *Radboud University* (1 semester, 2021)

Development & Mental Health: Psychopathology from a Lifespan Perspective (undergraduate level), *Radboud University* (1 semester, 2018-2021)

General Introduction to Psychology (undergraduate level), *Radboud University* (1 semester, 2016-2021)

Academic and professional skills in Artificial Intelligence, *Radboud University* (1 semester, 2016-2017)

Research Project 2-year and 3-year students, *Radboud University* (1 semester, 2018-2021)

### Workshops

Building an EMG lab: Recordings and signal processing, invited by Prof. Dr. Michel, Leipzig University, Germany (2021)

### PhD advisor

Nicole Rheinheimer, MSc, Developmental Psychobiology Lab, Rumc: Biological co-regulation and the development of HPA stress system in infancy and childhood (2020-2024) with Prof. Dr. de Weerth

Lucia Willems, MSc, Clinical Child and Family Studies, VU Amsterdam: Emotion regulation capacities and compassion in young adults (2021-2023), with Prof. Dr. Sterkenburg

### Master supervision

Ana Cruz Marques, BSc, *Biomolecular Sciences Research Master, Vrije Universiteit Amsterdam*: Exploring the origins of the developing infant HPA stress system (2024-2025)

Georgia Graat, BSc, Biomedical Sciences at *Radboud University*: Caregiving determinants of physical health throughout the first 14 years of life (2022-2023, submitted for publication)

Sounita Heider, Psychology, *Vrije Universiteit Amsterdam*: Affiliative behavior responses to social ostracism and attachment security (2022-2023)

Roosmarijn Kockelkoren, BSc, *Biomedical Sciences at Radboud University*: Biological aging and sleep disturbances throughout childhood. A longitudinal study (2022)

Sharona van Kuik, BSc, *Medical Psychology Master at Tilburg University*: Anxiety and depression in pregnant women between the 1st and 2nd COVID-19 waves (2022)

Nina Bruinhof, BSc, *Behavioral Sciences Research Master at Radboud University*: Prenatal hair cortisol during the COVID-19 crisis: associations with psychological Stress and infant temperament (2021, published)

Maja Kapitler, BSc, *Psychology Master, University of Ljubljana* (Slovenia): Can facial emotional expressions be contagious? Evidence from pupil dilation and electrical facial muscle activity (2018)

### Bachelor supervision

Aicha Mazrina, BSc, *Psychobiology at University of Amsterdam*: Implicit social processes and emotion regulation in individuals with intellectual disabilities (2022-2023)

Yearly 3-4 theses supervision at Radboud University

## **Public Engagement and Outreach**

- *Ouders van nu*, 2022 [article](#): Dit is waarom je je baby ál jouw emoties moet laten zien
- [Interview](#) RadboudUMC Press release & *Metronieuws* (2021) [article](#) on the impact of COVID-19 on pregnant women's mental health.
- *Vroeg*, 2021 [article](#): Zorg (en) in tijden van Corona.
- *De Psycholoog*, 2021, feature of my dissertation.
- [Interview](#) RadboudUMC, 2020: The effects of the COVID-19 pandemic on parents & babies.
- Kamerbrief van Ministry of Health, Well-being, and Sports report on Vacaru et al., 2019.
- Radboud Science Open Day for children with experimental demonstrations (2016).
- Attachment training for professional caregivers at Children's Home (South Africa, 2015).
- Workshops on safe sexual behaviors in adolescents, Tembisa (South Africa, 2015).

## **Journal peer reviews**

- Psychoneuroendocrinology
- Scientific Reports
- Child: Care, Health and Development

## **Memberships in Associations and Institutional Affiliations**

- Society for Research in Child Development
- International Society for Developmental Psychobiology
- Dutch Society for Developmental Studies
- International Society on Infant Studies
- The Society for Emotion and Attachment Studies