Dr. Ruud Hortensius

Department of Social, Health & Organisational Psychology
Utrecht University, The Netherlands

r.hortensius@uu.nl
www.ruudhortensius.nl / human-plus.gitlab.io

Academic appointments

2024 – present **Associate Professor, Utrecht University, The Netherlands**
Department of Social, Health & Organisational Psychology (permanent position)

2020 – 2024 **Assistant Professor, Utrecht University, The Netherlands**
Department of Social, Health & Organisational Psychology (permanent position)

2024: Senior Research Qualification (SKOz)

2023: University Teaching Qualification (BKO)

2017 – 2020 **Postdoctoral Researcher, University of Glasgow, United Kingdom**
Institute of Neuroscience and Psychology. From January 2017 – April 2018: School of Psychology, Bangor University, United Kingdom. Advisor: Prof. Emily S. Cross

2015 – 2016 **Postdoctoral Researcher, University of Cape Town, South Africa**
Department of Psychiatry and Mental Health (UCT) and Department of Cognitive Neuroscience, Maastricht University, The Netherlands. Advisor/host: Prof. Beatrice de Gelder, Prof. Dan J. Stein

Education

2016 **PhD *Cum Laude*, Tilburg University, The Netherlands**
Sympathy for the Devil - On the Neural Mechanisms of Threat and Distress Reactivity
Advisor: Prof. Beatrice de Gelder. Thesis available here

2011 **MSc, Utrecht University, The Netherlands**
Neuroscience and Cognition. Projects with Dr Dennis Schutter (UU) and Prof. Eddie Harmon-Jones (Texas A&M)

2008 **BSc *Cum Laude*, Utrecht University, The Netherlands**
Psychology, Major: Cognitive Neuroscience

2005 **BSc, University of Applied Sciences Utrecht, The Netherlands**
Social Work, focus on child psychiatry

Honours and grants

2025 – 2026 Fellow, NIAS-Lorentz Theme Group Fellowship, NIAS (NL)

2025 – 2026 NGF AiNed XS Europa, Dutch Research Council (NL). €80,000, role: PI

2025 – 2026 Open Competition XS, Dutch Research Council (NL) €50,000, role: PI

2024 – 2029 Starting Grant, European Research Council (EU) €1,500,000, role: PI

2024 – 2025 Open Science Fund, Dutch Research Council (NL) €50,000, role: main applicant

2024 – 2025 Open Science Fund, Utrecht University (NL) €15,000, role: main applicant

2023 – 2024 Profiling Project, Utrecht Young Academy (NL) €24,000, role: coordinator

2023 – 2024 Research Leadership Programme, Utrecht University

2023 – 2024 Open Competition XS, Dutch Research Council (NL) €50,000, role: PI

2023 – 2028	Member of the Utrecht Young Academy (NL)
2023	APS Rising Stars award, Association for Psychological Science
2021 – present	Human-AI Student Research Project Fund, Human-AI Alliance (NL) €10,000, role: co-PI
2021 – 2024	Human-centered AI Small Grant, Utrecht University (NL) €16,000, role: main applicant
2022	FSO project Social Neuroscience, Utrecht University (NL) €15,120, role: co-applicant
2019 – 2021	Scientific Research Grant, Bial Foundation (Portugal) €40,000, role: PI
2020	Public Engagement Seed Fund, Utrecht University (NL) €4,898, role: main applicant
2020	Nominated for Research Culture Award, University of Glasgow
2019	Flexible Talent Mobility Award, BBSRC (UK)
2017	Creative Practitioner-in-Residence (co-applicant), ESRC (UK)
2017	EPS Research Workshop Grant (co-applicant), Experimental Psychology Society (UK)
2016	Professors' Fund (PI), Maastricht University (NL)
2015	Van der Gaag Grant (PI), Royal Netherlands Academy of Arts and Sciences (NL)
2015	Erasmus+ grant, European Commission, Education & Training (EU)
2014	Best presentation, International Summer School in Social Cognitive Neuroscience, Italy
2010	Travel grant, K.F. Hein Society (NL)
2006 – 2008	Honours student, University wide Honours Minor, Utrecht University

Publications (*shared co-authorship, |trainee project)

|Held, R. F., Lorusso, A. M, Hogenhuis, A. L. P. M.., Kluwer, E., & **Hortensius, R.** (*in press*). Understanding family dynamics through a neurocognitive lens. *Journal of Family Theory & Review*,

|Diana, F., Cañamero, L., **Hortensius, R.**, & Kret, M. E. (2024). Merging sociality and robotics through an evolutionary perspective. *Science Robotics*, 9(92).

|Oliveira, M., Brands, J., Mashudi, J., Liefooghe, B., & **Hortensius, R.** (2024). Perceptions of artificial intelligence system's aptitude to judge morality and competence amidst the rise of Chatbots. *Cognitive Research: Principles and Implications*, 9(1), 47.

|Leisten, L. M., Heyselaar, E., Bosse, T., & **Hortensius, R.** (2024). Children's Reciprocity and Relationship Formation with a Robot Across Age. *Technology, Mind and Behavior* 5(2: Summer 2024)

Hortensius R. & Wiese, E. (2023). A neurocognitive view on the depiction of social robots. Commentary on target article by Clark and Fischer. *Behavioral and Brain Sciences*, 46

Liefooghe, B., Oliveira, M. J. B., Leisten, L. M., Hoogers, E., Aarts, H., & **Hortensius, R.** (2023). Are Faces Merely Labelled as Artificial Trusted Less? *Collabra: Psychology*, 9: 73066

|Diana, F., Juárez-Mora, O. E., Boekel, W., **Hortensius, R.** & Kret, M. (2023). How video calls affect mimicry and trust during interactions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 378: 20210484.

|Diana, F., Kawahara, M., Saccardi, I., **Hortensius, R.**, Tanaka, A., & Kret, M. (2023) A cross-cultural comparison on implicit and explicit attitudes towards artificial agents. *International Journal of Social Robotics*, 15: 1439-1455.

|Croijmans, I., van Erp, L., Bakker, A., Cramer, L., Heezen, S., van Mourik, D., Weaver, S., **Hortensius, R.** (2023). No Evidence for an Effect of the Smell of Hexanal on Trust in Human–Robot Interaction. *International Journal of Social Robotics,* 15: 1429-1438.

Seinfeld S., **Hortensius R.**, Arroyo-Palacios J., Iruretagoyena G., Zapata L.E., de Gelder B., Slater M. & Sanchez-Vives M.V.V. (2023). Domestic Violence From a Child Perspective: Impact of an Immersive Virtual Reality Experience on Men With a History of Intimate Partner Violent Behavior. *Journal of Interpersonal Violence,* 38: 2654-2682

|Hogenhuis, A. & **Hortensius R.** (2022). Domain-specific and domain-general neural network engagement during human-robot interactions. *European Journal of Neuroscience*, 56: 5902-5916

Hortensius R.*, Chaudhury B*, Hoffmann M. & Cross E.S. (2022). Tracking Human Interactions with a Commercially-available Robot over Multiple Days [version 1; peer review: 1 approved, 2 approved with reservations] *Open Research Europe,* 2: 97

|de Jong D., **Hortensius R.**, Hsieh T., & Cross E. S. (2021). Empathy and schadenfreude in human–robot teams. *Journal of Cognition*, 4: 35

|Timmerman, R.+, Hsieh, T.+, Henschel, A.*, **Hortensius, R.***, & Cross, E. S.* (2021). Individuals expend more effort to compete against robots than humans after observing competitive human-robot interactions. *The 2021 International Conference on Social Robotics*, 044

|**Hortensius, R.***, Kent, M.*, Darda, K. M., Jastrzab, L. E., Koldewyn, K., Ramsey, R., & Cross, E. S. (2020). Exploring the relationship between anthropomorphism and Theory-of-Mind in brain and behaviour. *Human Brain Mapping*, 42: 4224-4241

|Henschel A.*, **Hortensius R.*** & Cross E.S. (2020). Social Cognition in the Age of Human-Robot Interaction. *Trends in Neurosciences*, 43: 373-384

Fourie, M. M., **Hortensius, R.**, & Decety, J. (2020). Parsing the components of forgiveness: psychological and neural mechanisms. *Neuroscience & Biobehavioral Reviews*, 112, 437-451.

Cross E.S.*, **Hortensius R.*** & Wykowska A.* (2019). From social brains to social robots: Applying neurocognitive insights to human-robot interaction. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 374:20180024

|Cross E.S., Riddoch A.R., Pratts J., Titone S., Chaudhury B. & **Hortensius R.** (2019). A neurocognitive investigation of the impact of socialising with a robot on empathy for pain. *Philosophical Transactions of the Royal Society B: Biological Sciences,* 374:20180034

Hortensius R., Hekele, F. & Cross E.S. (2018). The perception of emotion in artificial agents. *IEEE Transactions on Cognitive and Developmental Systems,* 10:852-864

Hortensius R.* & Cross E.S.* (2018). From automata to animate beings: The scope and limits of attributing socialness to robots. *Annals of the New York Academy of Sciences,* 426:93-110

Hortensius R. & de Gelder B. (2018). From empathy to apathy: The bystander effect revisited. *Current Directions in Psychological Science*, 27:249256

Hortensius R., Neyret S., Slater M. & de Gelder B. (2018). The relation between bystanders' behavioral reactivity to distress and later helping behavior during a violent conflict in virtual reality. *PLoS ONE*, 3:e0196074

Seinfeld S., Arroyo-Palacios J., Iruretagoyena G., **Hortensius R.**, Zapata L.E., Borland D., de Gelder B., Slater M., Sanchez-Vives M.V.V. (2018). Offenders become the victim in virtual reality: impact of changing perspective in domestic violence. *Scientific reports*, 8:2692

Poyo Solanas M., Zhan, M., Vaessen, M., **Hortensius R.**, Engelen T. & de Gelder, B (2018). Looking at the face and seeing the whole body. Neural basis of combined face and body expression. *Social Cognitive and Affective Neuroscience,* 13:135-144

Kelley N.J., **Hortensius R.**, Schutter, D.J.L.G. & Harmon-Jones E. (2017). On the relationship of approach/avoidance motivation and asymmetric frontal cortical activity: A review of studies manipulating frontal asymmetry. *International Journal of Psychophysiology*, 119:19-30

Hortensius R., Terburg D., Morgan B., Stein D., van Honk J. & de Gelder B. (2017). The basolateral amygdalae and frontotemporal network functions for threat perception. *eNeuro*, 0314-16.2016

Hortensius R., Terburg D., Morgan B., Stein D., van Honk J. & de Gelder B. (2017). The dynamic consequences of amygdala damage on fear processing in Urbach-Wiethe Disease. A commentary on Pishnamazi et al.(2016). *Cortex*, 88:192-197

Hortensius R., & de Gelder B. & Schutter D.J.L.G. (2016). When anger dominates the mind – increased motor corticospinal excitability in the face of threat. *Psychophysiology*, 53: 1307-1316

Hortensius R., Schutter D.J.L.G. & de Gelder B. (2016). Personal distress and the influence of bystanders on responding to an emergency. *Cognitive, Affective, Behavioral Neuroscience*, 16:672–688

Hortensius R., Terburg D., Morgan B., Stein D., van Honk J. & de Gelder B. (2016). The role of the basolateral amygdala in the perception of faces in natural contexts. *Philosophical Transactions of the Royal Society B: Biological Sciences,* 20150376

Zhan M., **Hortensius R.** & de Gelder B. (2015). The body as a tool for anger awareness – Differential effects of facial and bodily expressions of anger on suppression from awareness. *PLoS ONE*, 10:e0139768

Van den Stock J., **Hortensius R.**, Sinke S., Goebel R. & de Gelder B. (*2015*). Personality traits predict brain activation and connectivity when witnessing a violent conflict. *Scientific Reports*, *5*:13779

Hortensius R., van Honk J., de Gelder B. & Terburg, D. (2014). Trait dominance promotes reflexive staring at masked angry body postures. *PLoS ONE*, 9:e116232

Hortensius R. & de Gelder B. (2014). The neural basis of the bystander effect - The influence of group size on neural activity when witnessing an emergency. *NeuroImage*, 93:53–58

de Gelder B., Terburg D., Morgan B., **Hortensius R.**, Stein J. & van Honk J. (2014). The role of human basolateral amygdala in ambiguous social threat perception. *Cortex*, 52:28–34

de Gelder B. & **Hortensius R.** (2014). The many faces of the emotional body. In J. Decety and Y. Christen (Eds). New Frontiers in Social Neuroscience. Berlin: Springer Verlag

Price T.F., **Hortensius R.** & Harmon-Jones E. (2013). Neural and behavioral associations of manipulated determination facial expressions. *Biological Psychology*, 94:221–227

Kelley N.J., **Hortensius R.** & Harmon-Jones E. (2013). When anger leads to rumination: induction of relative right frontal cortical activity with transcranial direct current stimulation increases anger-related rumination. *Psychological Science,* 24:475–481

de Gelder B., **Hortensius R.** & Tamietto M. (2012). Attention and awareness each influence amygdala activity for dynamic bodily expressions. A short review. *Frontiers in Integrative Neuroscience,* 6:54

Hortensius R., Schutter D.J.L.G. & Harmon-Jones E. (2012). When anger leads to aggression: Induction of relative left frontal cortical activity with transcranial direct current stimulation increases the anger-aggression relationship, *Social Cognitive and Affective Neuroscience*, 7:342–347

Schutter D.J.L.G. & **Hortensius R.** (2011). Brain oscillations and frequency dependent modulation of cortical excitability, *Brain Stimulation*, 4:97–103. Featured on the cover

Schutter D.J.L.G. & **Hortensius R.** (2010). Retinal origin of phosphenes to transcranial alternating current stimulation, *Clinical Neurophysiology*, 221:1080–1084. With accompanying editorial

Preprints / Submitted publications

|van Beek, H.*, Boda, D.*, Diana, F.*, Held, R. F.*, Hogenhuis, A. L. P. M.*, Moore Lorusso, A.*, & **Hortensius, R.** (2025, September 29). Seven questions on perceiving and understanding other minds. https://doi.org/10.31234/osf.io/t8s9k_v1

|Diana, F., Kawahara, M., Tanaka, A., Shalvi, S., **Hortensius, R.***, & Kret, M.* (2025, September 23). Cross-Cultural Variation in Dishonesty Toward Humans and Artificial Agents Depends on Agent Pupil Size. https://doi.org/10.31234/osf.io/8nqsy_v1

|Moore Lorusso, A., van Boogerd, G. L., Jansen, M., Hogenhuis, A. L. P. M., & Hortensius, R. (2025, June 12). The Impact of Long-term Interactions with a Digital Voice Agent on Trust and Roles Within a Household. https://doi.org/10.31234/osf.io/7zgt8_v1

|Komáromy, Z., Lorusso, A. M., van der Wal, R. C., & **Hortensius, R.** (2024, March 1). Revealing Attentional Biases in Conspiracy Theory Believers. https://doi.org/10.31234/osf.io/p2bgy

Supervision

Postdoc	Fabiola Diana (2025 – present)
	Manuel Barbosa de Oliveira (2022 – 2023)
PhD student	Aline Moore Lorusso (2024 – present), main supervisor *Funded by ERC Starting Grant*
	Ann Hogenhuis (2024 – present), main supervisor *Funded by ERC Starting Grant*
	Ronja Held (2024 – present), main supervisor *Funded by ERC Starting Grant*
	Fabiola Diana (2021 – 2025, Leiden University), co- supervisor, main supervisor Prof. Mariska Kret
	Anna Henschel, social motivation and human-robot interaction (2019-2020, main supervisor Prof. Emily Cross). *She is currently a project manager at Wissenschaft im Dialog*
Postdoc	Manuel Barbosa de Oliveira (2022 – 2023)
PhD student	Aline Moore Lorusso (2024 – present), main supervisor *Funded by ERC Starting Grant*
	Ann Hogenhuis (2024 – present), main supervisor *Funded by ERC Starting Grant*
	Ronja Held (2024 – present), main supervisor *Funded by ERC Starting Grant*
	Fabiola Diana (2021 – present, Leiden University), co- supervisor, main supervisor Prof. Mariska Kret
	Anna Henschel, social motivation and human-robot interaction (2019-2020, main supervisor Prof. Emily Cross). *She is currently a project manager at Wissenschaft im Dialog*
Student / research assistant	Aline Moore Lorusso, research assistant (2023 – 2024). *Funded by NWO Open Competition*
	Dorka Boda, research assistant (2024 – present). *Funded by UU and NWO Open Science Funds*
	Hester van Beek, student assistant (2024 – present). *Funded by UU Open Science Fund, ERC Starting Grant*
	Giulia D'Angelo, student assistant on AI Helpdesk (2024 – 2025). *Funded by Utrecht Young Academy*
	Luca Leisten, student assistant on AI and psychology projects (2021 – 2022). *She is currently a PhD student at ETH Zürich*
	Geertje Hendriks, public engagement research project and Embodied AI initiative (2021 – 2022).
Research Technician	Michaela Kent, anthropomorphism and dehumanisation (2019-2020). *She is currently a PhD student at Western University*

Teaching (selection)

Utrecht University	*Coordinator*, Honours College Social and Behavioural Sciences (BSc)
	Lecturer and Instructor, Research Seminars and Projects in Social Neuroscience (BSc), Psychology and Economic Behaviour (BSc, past coordinator), Methods in AI Research (MSc), Advances in research in Behavioral Regulation I: Social Behavior (MSc), Introduction to Cognitive Science (BSc), AI for an Open Society (BSc), The 21st Century and the Modern Person (BSc).
	Supervision of thesis and research projects for Artificial Intelligence (MSc), University College Utrecht (BSc), Social and Health Psychology (MSc), Social, Health, and Organisational Psychology (MSc), Artificial Intelligence (BSc), Neuroscience & Cognition (MSc), RiSE DAAD and ERASMUS+ interns.
University of Glasgow	*Developer/Organiser/Lecturer*, Socially Intelligent Artificial Technologies in Society year 4/PGT (BSc/MSc) module
	Lecturer, Social Robotics year 4/PGT (BSc/MSc) module
	Supervision of BSc and MSc research thesis students and interns, RiSE DAAD and ERASMUS+ interns

Professional service (selection)

Editor	*International Journal of Social Robotics (associate editor)*
	Philosophical Transactions of the Royal Society B theme issue *From social brains to social robots: Applying neurocognitive insights to human-robot interaction* with E. Cross and A. Wykowska (publication date: Spring 2019)
Member	Utrecht Young Academy (2023 – 2028).
	Autonomous Intelligent Systems Special Interest Group board member, Human-centered Artificial Intelligence, Utrecht University
	Athena Swan Culture Development Group, Institute of Neuroscience and Psychology, University of Glasgow (2019 – 2020)
Chair	FSO project Social Neuroscience, Utrecht University, The Netherlands (2022 – 2024)
	Design competition, 13th International Conference on Social Robotics, Singapore (2021)
	Tutorials, Affective Computing and Intelligent Interaction conference, Japan (2022)

Organized workshop and symposia (selection)

2025	*Social Dynamics 2025.* Workshop co-organized with R. Held and D. Boda, Utrecht University
2020 – 2024	*Embodied AI.* Panel and seminar series co-organized with M. de Graaf and Z. Yumak, Utrecht University
2018	*Cognitive and Social Neuroscience Methods for HRI.* Workshop co-organized with E. Cross, A. Wykowska, G. Metta, and C. Becchio at the 13th ACM/IEEE International Conference on Human Robot Interaction, Chicago, USA
2017	*The Emerging Social Neuroscience of Social Robotics.* Workshop co-organized with E. Cross at Bangor University
2017	*Real worlds for virtual humans – Changing Perspectives.* Symposium co-organized with S. Seinfeld (University of Barcelona) at the International Convention of Psychological Science, Austria

Public engagement (selection)

2025 *A popularity contest in the robotic petting zoo (reprise).* The interactive art performance was reprised as part of 2025 Bits 'n Bolts Festival in Zurich together with Emily Cross and Merel Bekking.

2024 *Summer activities Universiteits Museum Utrecht.* Together with my team I organise a series of summer activities to engage families in our research on the use and impact of AI in the family context.

Betweter Festival. Together with my team, we take part in this science festival with an experiment on the impact of AI on group dynamics.

Family Lecture. With my team, I developed a lecture for families on our past, present, and future research on the impact of AI on individual social cognition and social dynamics of families.

Social Animal. Petcha Kutcha talk as part of KLI/ASPO public engagement event in TivoliVredenburg.

2022 *Breinbreker Festival.* For this festival we developed an interactive game to measure reciprocity during child-robot interaction.

2021 *InScience Festival*. During this festival we explored decision-making during human-robot interaction

Grandpa, grandma, robot and I. Funded by an Utrecht University public engagement seed fund this project starts the conversation on the integration of robots in the social milieu of children and their grandparents

2019 *Public talk* at the Pint of Science Festival "How to Train Your Robot?" event, Glasgow

Panelist and speaker at the post-show discussion of "Interference", a trilogy of near future plays by the National Theatre of Scotland, Glasgow

2017 - 2018 *A popularity contest in the robotic petting zoo*. As part of an ESRC-IAA funded artist-in-residency of designer Merel Bekking, I co-developed this interactive art performance. Presented as a stand-alone event at Pontio Bangor University's Art and Innovation Centre, and as part of the 2018 Glasgow Science Festival and the 2018 British Science Festival. More info at the Petting Zoo's website

2016 – present *Interview* for *BBC Radio Wales,* in Dutch newspapers *de Volkskrant, Het Parool, RTL Nieuws* website, *Radio 1*, *Radio 5*, *Radio 1 Belgium,* and *Psychologie Magazine*.

Invited conference talks and departmental seminars (selection)

2025 Mindful connections: social interactions, emotional processing, and inference in the brain workshop, Accademia delle Scienze di Torino, Turin, Italy

2024 Cross-Species Emotion Research preconference ISRE 2024, Belfast, Northern Ireland

Social Robotics meeting, Delft University of Technology, The Netherlands

Social Psychology Colloquium, Tilburg University, The Netherlands

Panel discussion, European Communication Science Event workshop, Nijmegen, The Netherlands

2023 Work and organisation colloquium series, Erasmus University Rotterdam, The Netherlands

ESCON The Future of Psychology and Robotics, Integrative Science Symposium, International Convention of Psychological Science, Brussels, Belgium

Neurocognitive perspective on Human-Robot Interaction workshop, International Convention of Psychological Science, Brussels, Belgium

2022 INTERACT! Workshop, Ruhr-Universität Bochum, Germany

European Society for Cognitive and Affective Neuroscience 2022, Vienna, Austria

Human-Robot Interaction Winterschool, Gent, Belgium

2021 Macquarie Methods and Metascience meeting, Macquarie University, Australia

	Behavioural Science Institute, Radboud University, The Netherlands
	socialBRIDGES e-conference, The near-future of AI
	Department of Psychology Seminar Series, University of Dundee, UK
2020	Cognition Research Group in Stirling, University of Stirling, UK
2019	3rd Human Brain Project Curriculum Workshop Series - Cognitive systems for non-specialists, UK
	21st Meeting of the European Society for Cognitive Psychology, Spain
	"Bystander Roles in Peace and Conflict", Lorentz Center Workshop, The Netherlands
2018	4th Workshop on Virtual Social Interaction, UK
	3rd meeting of the European Social and Affective Neuroscience Society, The Netherlands
	13th ACM/IEEE International Conference on Human Robot Interaction, USA
2016	International Convention of Psychological Science, Austria
	Department of Psychiatry and Mental Health, University of Cape Town, South Africa