# NORA TUROMAN, PhD

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Languages: English, Serbian, Hungarian (native proficiency), French (full professional proficiency)

# RESEARCH

### **EDUCATION & POSITIONS**

Aug 2022 – **Consultant (part-time)**present Jacobs Foundation, Zürich, CH

Jan 2022 – Junior Group Leader (Jacobs Foundation Research Fellow 2022-2024)

present Working Memory, Cognition and Development lab, Faculty of Psychology and Educational Sciences,

University of Geneva, Geneva, CH

Host: Prof. Evie Vergauwe

### Oct 2020 - Postdoctoral Researcher

present Working Memory, Cognition and Development lab, Faculty of Psychology and Educational Sciences,

University of Geneva, Geneva, CH Advisor: Prof. Evie Vergauwe Resulting publications:

1. <u>Turoman, N.</u>, Vergauwe, E. (Under review). The effect of Multisensory distraction on working memory: A role for task relevance? *Journal of Experimental Psychology: Learning, Memory, and Cognition.* 

- Turoman, N., Heyard, R., Schwab, S., Furrer, E., Vergauwe, E., & Held, L. (Under review).
   Constructing and implementing PRECHECK: A checklist to evaluate preprints on COVID-19 and beyond. Research integrity and Peer review.
- 3. <u>Turoman, N.,</u> Hautekiet, C., Jeanneret, S., Valentini, B., & Langerock, N. (2022). Open and reproducible practices in developmental psychology research: The workflow of the WomCogDev lab as an example. *Infant and Child Development*, e2333, 1-17.

# Oct 2016 - PhD in Neuroscience (passed with best marks and minor corrections)

Jun 2020 Department of Radiology, University of Lausanne (UniL)/University Hospital Center (CHUV), and Institute of Information Systems, HES-SO Valais, CH

Supervisors: Dr Paul Matusz (direct supervisor) & Prof. Micah Murray (thesis director)

Resulting publications:

- 1. <u>Turoman, N.,</u> Tivadar, R. I., Retsa, C., Murray, M. M., and Matusz, P. (2021). Towards understanding how we pay attention in naturalistic visual search settings. *NeuroImage*, 244, 118556.
- 2. <u>Turoman, N.</u>, Tivadar, R. I., Retsa, C., Maillard, A. M., Scerif, G., and Matusz, P. (2021). Uncovering the mechanisms of real-world attentional control over the course of primary education. *Mind, Brain, and Education*, 15(4), 344-353.
- 3. <u>Turoman, N.,</u> Tivadar, R. I., Retsa, C., Maillard, A. M., Scerif, G., and Matusz, P. (2021). The development of attentional control mechanisms in multisensory environments. *Developmental Cognitive Neuroscience*, 48, 100930.
- 4. Matusz, P., <u>Turoman, N.</u>, Tivadar, R. I., Retsa, C., and Murray, M.M. (2019) Brain and cognitive mechanisms of top-down attentional control in a multisensory world: Benefits of electrical neuroimaging. *Journal of Cognitive Neuroscience*, 31(3), 412-430.
- 5. <u>Turoman, N., Merkley, R., Scerif, G., and Matusz, P. (2017)</u> How Do Kids and Grown-Ups Get Distracted in Everyday Situations? *Frontiers for Young Minds*, 5(8).

# Oct 2015 - MSc in Psychological Research (Upper second class = magna cum laude)

Oct 2016 Department of Experimental Psychology, University of Oxford, UK

Supervisor: Prof. Charles Spence

Resulting publication: <u>Turoman, N., Velasco, C., Chen, Y.-C., Huang, P.-C., & Spence, C.</u> (2018). Symmetry and its role in the crossmodal correspondence between shape and taste. *Attention, Perception, & Psychophysics, 80*(3), 738-75

### Nov 2014 - Research Assistant

Sept 2015 Brain, Language, and Intersensory Perception (BLIP) lab, College of Humanities and Social Sciences, Nanyang Technological University, SG

Supervisor: Prof. Suzy Styles

Resulting publication: <u>Turoman, N.</u>, & Styles, S. J. (2017). Glyph guessing for 'oo' and 'ee': spatial frequency information in sound symbolic matching for ancient and unfamiliar scripts. Royal Society Open Science, 4(9), 170882.

### Jan 2012 - BSc (Hons) in Psychological Studies (First class = summa cum laude)

Jul 2014 Cardiff Metropolitan University, Singapore branch

### **FUNDING**

### Jacobs Foundation Research Fellowship Program 2022-2024.

Jacobs Foundation, Zurich, CH. Grant number: 2021-1417-00. "Understanding learning through the effects of real-world distraction on developing memory" (CHF 150,000)

### AWARDS AND CAREER DEVELOPMENT

- 2022 **Professional development workshop: Project management for successful researchers.** Ateliers REGARD, University of Fribourg, CH
- 2021 Mentee position in the Réseau romand de mentoring pour femmes. University of Fribourg, CH
- Flux pre-conference workshop stipend. Flux: the Society for Developmental Cognitive Neuroscience (funded by the Hope Lab and the Bezos Family Foundation; CHF 123)
- 2019 Lemanic Neuroscience Travel Award. University of Lausanne, CH (CHF 1,085)

# **PUBLICATIONS**

### **Registered Reports**

1. **Turoman, N.,** Vergauwe, E. (under review). The effect of Multisensory distraction on working memory: A role for task relevance? *Journal of Experimental Psychology: Learning, Memory, and Cognition.* 

Preregistration: https://osf.io/z6jwt

Open data, and materials: https://osf.io/y84ks/

### **Peer-reviewed publications**

1. **Turoman**, **N.**, Heyard, R., Schwab, S., Furrer, E., Vergauwe, E., & Held, L. (Under review). Constructing and implementing PRECHECK: A checklist to evaluate preprints on COVID-19 and beyond. *Research integrity and Peer review* 

Preprint: https://osf.io/preprints/metaarxiv/nb928/

Open data, and supplementary materials: https://osf.io/8k9ac/

- 2. Tivadar, R. I., Arnold, R. C., **Turoman**, **N.**, Knebel, J. F., & Murray, M. M. (2022). Digital Haptics Improve Speed of Visual Search Performance in a Dual-Task Setting. *Scientific Reports*, 12, 9728.
- 3. **Turoman, N.**, Hautekiet, C., Jeanneret, S., Valentini, B., & Langerock, N. (2022). Open and reproducible practices in developmental psychology research: The workflow of the WomCogDev lab as an example. *Infant and Child Development*, e2333, 1-17.

Pre-print: https://psyarxiv.com/73bwu/

- 4. **Turoman**, **N.**, Tivadar, R. I., Retsa, C., Murray, M. M., and Matusz, P. (2021). Towards understanding how we pay attention in naturalistic visual search settings. *NeuroImage*, 244, 118556.

  Pre-print: https://www.biorxiv.org/content/10.1101/2020.07.30.229617v4
- 5. **Turoman**, **N.**, Tivadar, R. I., Retsa, C., Maillard, A. M., Scerif, G., and Matusz, P. (2021). Uncovering the mechanisms of real-world attentional control over the course of primary education. *Mind, Brain, and Education*, 15(4), 344-353.

Pre-print: https://www.biorxiv.org/content/10.1101/2020.10.20.342758v2.abstract

- 6. **Turoman**, **N.**, Tivadar, R. I., Retsa, C., Maillard, A. M., Scerif, G., and Matusz, P. (2021). The development of attentional control mechanisms in multisensory environments. *Developmental Cognitive Neuroscience*, 48, 100930. <a href="https://www.biorxiv.org/content/10.1101/2020.06.23.166975v3.abstract">https://www.biorxiv.org/content/10.1101/2020.06.23.166975v3.abstract</a>
- 7. Matusz, P., **Turoman**, **N.**, Tivadar, R., Retsa, C., and Murray, M.M. (2019). Brain and cognitive mechanisms of top-down attentional control in a multisensory world: Benefits of electrical neuroimaging. *Journal of Cognitive Neuroscience*, 31(3), 412-430.
- 8. Tivadar, R.I., Rouillard, T., Chappaz, C., Knebel, J.-F., **Turoman**, **N.**, Anaflous, F., Roche, J., Matusz, P., and Murray, M.M. (2019). Mental Rotation of Digitally-Rendered Haptic Objects. *Frontiers in Integrative Neuroscience*, 13, 7.
- 9. Tivadar, R.I., Retsa, C., **Turoman**, **N.**, Matusz, P.-J., and Murray, M.M. (2018). Sounds enhance visual completion processes. *Neuroimage*, 179, 480-488.
- 10. **Turoman, N.**, Velasco, C., Chen, Y.-C., Huang, P.-C., and Spence, C. (2018). Symmetry and its role in the crossmodal correspondence between shape and taste. *Attention, Perception, & Psychophysics, 80*(3), 738-751. Open data, materials, and code: https://osf.io/qn593/
- 11. **Turoman, N.**, and Styles, S. J. (2017). Glyph guessing for 'oo' and 'ee': spatial frequency information in sound symbolic matching for ancient and unfamiliar scripts. *Royal Society Open Science*, 4(9), 170882. <a href="https://osf.io/xufmd/">Open materials: https://osf.io/xufmd/</a>
- 12. **Turoman N**, Merkley R, Scerif G and Matusz P (2017) How Do Kids and Grown-Ups Get Distracted in Everyday Situations? *Frontiers for Young Minds*. 5(8). 1-9.

# **INVITED TALKS**

2018

8 <sup>th</sup> Nov, 2022	Leibniz Research Centre for Working Environment and Human Factors. Dortmund, Germany. "Attention and memory in a multisensory world"
11 <sup>th</sup> Aug, 2021	<b>Peelle lab.</b> St. Louis, MO, USA. "Do masks affect children's speech comprehension? A sneak peek of a grassroots study"
24 <sup>th</sup> Feb, 2021	<b>Attention, Brain &amp; Cognitive Development lab.</b> Oxford, UK. "Uncovering the mechanisms of realworld attentional control over the course of primary education."

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CONFERENCE PRESENTATIONS		
7 <sup>th</sup> – 9 <sup>th</sup> Sep,	Flux Congress 2022, Paris, FR	
2022	<u>Poster</u> : "Can we decode school-aged children's working memory contents? Our proof-of-concept study suggests so."	
18th Nov, 2019	1st Annual Meeting of the Swiss Society for Early Childhood Research (SSECR), Lausanne, CH Flash talk: "Educational outcomes depend both on visual and multisensory control of selective attention"	
24 <sup>th</sup> – 26 <sup>th</sup> Oct,	Rovereto Attention Workshop, Rovereto, IT	
2019	<u>Poster:</u> "Educational outcomes depend both on visual and multisensory control of selective attention"	
29th Aug - 1st	Flux Congress 2019, New York, NY, USA	
Sep, 2019	<u>Poster:</u> "Educational outcomes depend both on visual and multisensory control of selective attention"	
3 <sup>rd</sup> – 4 <sup>th</sup> Apr, 2019	1st Annual Meeting of the NeuroLeman Network and Doctoral Schools 2019 (NLN'19), Les Diablerets, CH	
	<u>Poster:</u> "Educational outcomes depend both on visual and multisensory control of selective attention"	
27 <sup>st</sup> – 29 <sup>rd</sup> Sep, 2018	The International Mind Brain and Education Society 2018 Conference, Los Angeles, CA, USA Poster: "Multisensory control over developing visual selective attention and its role in educational outcomes"	
2 <sup>nd</sup> - 3 <sup>rd</sup> Sep,	Lemanic Neuroscience Annual Meeting (LNAM) 2018, Les Diablerets, CH	

30 <sup>th</sup> Aug – 1 <sup>st</sup> Sep, 2018	Flux Congress 2018, Berlin, DE <u>Poster</u> : "Taking attention back to school: Multisensory processes influence developing visual attention control"
1st — 2nd Sep, 2017	Lemanic Neuroscience Annual Meeting (LNAM) 2017, Les Diablerets, CH Presentation of scientific poster: "Semantics in the multisensory brain: Insights from electrical neuroimaging"
19 <sup>th</sup> — 22 <sup>nd</sup> May, 2017	International Multisensory Research Forum (IMRF) 2017, Nashville, TN, USA <u>Poster:</u> "Semantics in the multisensory brain: Insights from electrical neuroimaging"
28 <sup>th</sup> Aug – 1 <sup>st</sup> Sep, 2016	European Conference of Visual Perception (ECVP) 2016, Barcelona, ES  Poster: "Visual symmetry influences the cross-modal correspondence between visual shape and taste"

attention control"

<u>Poster:</u> "Taking attention back to school: Multisensory processes influence developing visual

# **TEACHING**

LECTURES &	WORKSHOPS
31st May, 202	Workshop (lecture and practical), "How to prevent misinformation with PRECHECK: A checklist to evaluate preprints on COVID-19 and beyond", at: "Fact checking for science journalists – how to make sure the story is true", Swiss National Science Foundation, CH
9th May, 2022	Guest lecture and practical, "Preprints and peer-review" in: "Compétences et connaissances scientifiques en psychologie", Bachelors in Psychology, University of Geneva, CH
22nd Mar, 202	Guest lecture "Chapter 3: The development of attention" in: "Le développement cognitif de l'enfant", Bachelors in Psychology, University of Geneva, CH
13th Oct, 2021	Workshop (lecture and practical), "Experimental paradigms made simple (and online) with Psychopy Builder and Pavlovia", University of Zurich, CH
3rd May, 2021	Guest lecture and practical, "Preprints and peer-review: a deep dive" in: "Compétences et connaissances scientifiques en psychologie", Bachelors in Psychology, University of Geneva, CH
16th Mar, 202	Guest lecture "Chapter 3: The development of attention" in: "Le développement cognitif de l'enfant", Bachelors in Psychology, University of Geneva, CH
COURSES	
June 2022	<b>Grading asistant</b> on Bachelors in Psychology course: "Les activités numériques et leur développement", University of Geneva, CH Responsibilities: assigning grades based on performance in exam
Jan 2022 – present	<b>Exam</b> assistant on Bachelors in Psychology course: "Introduction à la psychologie du développement cognitif ", University of Geneva, CH  **Responsibilities: administrating and invigilating final exam
Feb 2021 – present	<b>Teaching assistant</b> on Bachelors in Psychology course: "Le développement cognitif de l'enfant", University of Geneva, CH (evaluation result: 3.79 out of 4)  Responsibilities: informing students on course requirements, ad-hoc handling of student queries, giving guest lecture, assistance during practical lessons, creating exam questions, preparing, administrating, and invigilating final exam, assigning grades based on performance in assignments and final exam
Oct 2020 — Jan 2021	<b>Grading asistant</b> on Bachelors in Psychology course: "Des théories en psychologie du développement cognitif à la pratique", University of Geneva, CH

Responsibilities: assigning grades based on performance in assignments

# **AD-HOC TRAINING**

Apr 2022 – present	<b>EEG with Biosemi</b> , for WomCogDev lab members, University of Geneva, CH
Oct 2016 – Jun 2020	FFG lab use for researchers and clinicians Lausanne University Hospital (CHLIV) CH

# **SERVICE**

### **SUPERVISION**

Nov 2022 – June 2023	Alyssia Kursner – Master student in Psychology, University of Geneva, CH
	Audrey Barberot – Master student in Psychology, University of Geneva, CH
	Brunella Terrapon – Master student in Psychology, University of Geneva, CH
Sep 2022 – Dec 2022	Kishen Senziani – Research Assistant, University of Geneva, CH
Feb 2022 — June 2023	Anae Motz – research project student (Until June 2022), Research Assistant (Sep 2022 –
	June 2023), University of Geneva, CH
Oct 2021 - June 2022	Danja Conconi – Master student in Psychology (co-supervision), University of Zurich, CH
	Franziska Hürlimann – Master student in Psychology (co-supervision), University of Zurich,
	CH
Sep 2021 - June 2023	Elodie Walter – intern (until Dec 2021), Research Assistant (Feb 2022 – June 2023),
	University of Geneva, CH
Sep 2021 - June 2022	Clélia Zahnd – Research Assistant, University of Geneva, CH
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# **COMMITTEE WORK**

### In thesis committees

June 2022

- Margaux Rollot, candidate for the Masters in Psychology, University of Geneva, CH (external jury member, topic expert): "Le multitasking: Est-il fait de façon différente pour les enfants que pour les adultes?"
- Sarah Da Costa Arezes, candidate for the Masters in Psychology, University of Geneva, CH (external jury member, topic expert): "Le multitasking: Est-il fait de façon différente pour les enfants que pour les adultes?"
- Michelle Nicole Santos Quintanilla, candidate for the Masters in Psychology, University of Geneva, CH
  (external jury member, topic expert): "Le multitasking: Est-il fait de façon différente pour les enfants que pour
  les adultes?"

### Sept 2021

- Mégane Marguerat, candidate for the Masters in Psychology, University of Geneva, CH (external jury member, topic expert): "Est-ce que les performances de rappel des enfants de 6 à 11 ans bénéficient du rafraîchissement attentionnel quand son utilisation est imposée ?"
- Nada Abou el Maati, candidate for the Masters in Psychology, University of Geneva, CH (external jury member, topic expert): "Le rafraîchissement attentionnel imposé chez les enfants de 6-7 ans et de 10-11 ans"

### In hiring committees

May 2022

• Andreas Ihle, candidate for Assistant Professor in Psychology of Lifespan Development, University of Geneva, CH (internal jury member, representing research and teaching staff): "Development of reserves and vulnerability: an interdisciplinary lifespan perspective"

# PROFESSIONAL MEMBERSHIPS

2021 - ongoing	UniGe local node of the Swiss Reproducibility Network
2021 - ongoing	L'Association des Collaborateur.rice.s de l'Enseignement et de la Recherche en Psychologie
	(ACERP)
2018 - ongoing	Flux: the Society for Developmental Cognitive Neuroscience
2018 – 2023	The Swiss Society for Early Childhood Research (SSECR)

# **REVIEWING ACTIVITY**

### **Journals**

- Developmental Psychology
- Frontiers in Psychology
- Wiley Interdisciplinary Reviews: Cognitive Science
- Multisensory Research
- Psychological Research

### **Grants**

2018

2017

2015

Swiss National Science Foundation (SNSF)

# SCIENCE COMMUNICATION AND EDUCATION

21st Oct,	Educational event for teachers at the Cycle d'orientation de Sécheron, Geneva, Switzerland
2021	Held a lecture and interactive workshop for secondary school teachers on how working memory
	disorders manifest in the classroom, and how to support children with such problems as part of the
	educational event entitled "Mon élève n'apprend pas: Troubles neuro-développementaux et
	apprentissages"

Apr 2021 - July	PRECHECK: A checklist to evaluate COVID-19 preprints
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2022 Created a teaching tool in the form of a checklist to help scientifically-literate non-specialists critically evaluate preprints. Prepared and taught classes for psychology students and journalists at the University of Geneva on scientific publishing and preprints.

23<sup>rd</sup> Jan, MedGIFT writing workshop
Collaborated on a blog post hosted on Medium.com entitled 'How to 'crack the code' of the

developing brain?'

23<sup>rd</sup> – 26<sup>th</sup> May, Mysteres de l'UniL, University of Lausanne, Lausanne, Switzerland

2019 Presented interactive workshop: 'Visual Problems: See the World Through Their Eyes' including a dyslexia simulation task (4 days, approx. 140 children – one of the most popular exhibits)

15th May, Jacobs Foundation's Blog on Learning and Development (BOLD)
2019 Blog post entitled 'How to bridge the gap between families and the science of learning'.

17th – 18th Nov, L'Hôpital des Nounours, CHUV, Lausanne, Switzerland

Informing participating families on research work (my own, and in the field of developmental cognitive neuroscience) and recruiting interested families for ongoing research

4<sup>th</sup> – 5<sup>th</sup> Nov, <u>L'Hôpital des Nounours</u>, CHUV, Lausanne, Switzerland

2017 Informing participating families on research work (my own, and in the field of developmental cognitive neuroscience) and recruiting interested families for ongoing research

March – May, Frontiers for Young Minds: Understanding Neuroscience

<u>Author on:</u> **Turoman N**, Merkley R, Scerif G and Matusz P (2017) How Do Kids and Grown-Ups Get Distracted in Everyday Situations? *Frontiers for Young Minds*. 5(8). doi: 10.3389/frym.2017.00008

<u>Science mentor/reviewer on:</u> Myers T (2017) Getting Out of the Laboratory to Make Experiments Real: Can Sports Fans Influence Muay Thai Judges? *Frontiers for Young Minds.* 5(13).

17<sup>th</sup> – 19<sup>th</sup> Nov, Food Matters Live, ExCel, London, UK

Exhibiting experimental research as part of the Food Sensorium Attraction

18<sup>th</sup> – 23<sup>rd</sup> Aug, Soundislands Festival (SI15), Nanyang Technological University and ArtScience Museum, Singapore

Interactive live demonstration of <u>previous research work</u>