# NORA TUROMAN, PhD

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

# RESEARCH

## **EDUCATION & POSITIONS**

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>, Fiave, P.A., Zahnd, C., deBettencourt, M., & Vergauwe, E. (Under review). Decoding the content of working memory in school-aged children. Cortex.
- 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. F1000Research 2022
- Turoman, N., Vergauwe, E. (Registered report with in-principle acceptance). The effect of Multisensory distraction on working memory: A role for task relevance? Journal of Experimental Psychology: Learning, Memory, and Cognition.
- 4. <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.

### Aug 2022 - Consultant (part-time)

Dec 2022 Jacobs Foundation, Zürich, CH

# 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) How Do Kids and Grown-Ups Get Distracted in Everyday Situations? Frontiers for Young Minds, 5(8).</u>

### 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: Turoman, N., Velasco, C., Chen, Y.-C., Huang, P.-C., & Spence, C. (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: Turoman, N., & 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 Mentoring network for women in French-speaking Switzerland [name translated from French]. University of Fribourg, CH
- 2019 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. (In-principle acceptance). The effect of Multisensory distraction on working memory: A role for task relevance? Journal of Experimental Psychology: Learning, Memory, and Cognition.

Preprint: https://psyarxiv.com/fd9xh

Preregistration: https://osf.io/zójwt

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

# Peer-reviewed publications

Turoman, N., Fiave, P.A., Zahnd, C., deBettencourt, M., & Vergauwe, E. (Under review). Decoding the content of working memory in school-aged children. Cortex.

Preprint: https://www.biorxiv.org/content/10.1101/2023.02.10.527990v1.abstract

Open data, materials, and code: https://osf.io/jeh67/

3. 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. F1000Research 2022 Preprint: https://osf.io/preprints/metaarxiv/nb928/

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

- 4. 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.
- 5. 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/

6. 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. Neurolmage, 244, 118556. Pre-print: https://www.biorxiv.org/content/10.1101/2020.07.30.229617v4

- 7. 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
- 8. 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. Pre-print: https://www.biorxiv.org/content/10.1101/2020.06.23.166975v3.abstract
- 9. 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.
- 10. 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.
- 11. Tivadar, R.I., Retsa, C., Turoman, N., Matusz, P.-J., and Murray, M.M. (2018). Sounds enhance visual completion processes. Neuroimage, 179, 480-488.
- 12. 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/
- 13. 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. Open materials: https://osf.io/xufmd/
- 14. 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

30 <sup>th</sup> Nov, 2022	Centre for the Interdisciplinary study of Gerontology and Vulnerability (CIGEV). Geneva, Switzerland. "Memory in a multisensory world."
8 <sup>th</sup> Nov, 2022	<b>Leibniz Research Centre for Working Environment and Human Factors.</b> 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 real-world attentional control over the course of primary education."

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,	1st Annual Meeting of the Swiss Society for Early Childhood Research (SSECR), Lausanne, CH	
2019	<u>Flash talk:</u> "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 <a href="Poster">Poster</a> : "Multisensory control over developing visual selective attention and its role in educational outcomes"
2 <sup>nd</sup> — 3 <sup>rd</sup> Sep, 2018	Lemanic Neuroscience Annual Meeting (LNAM) 2018, Les Diablerets, CH  Poster: "Taking attention back to school: Multisensory processes influence developing visual attention control"
30 <sup>th</sup> Aug — 1 <sup>st</sup> Sep, 2018	Flux Congress 2018, Berlin, DE  Poster: "Taking attention back to school: Multisensory processes influence developing visual attention control"
1 <sup>st</sup> – 2 <sup>nd</sup> Sep, 201 <i>7</i>	Lemanic Neuroscience Annual Meeting (LNAM) 2017, Les Diablerets, CH  Poster: "Semantics in the multisensory brain: Insights from electrical neuroimaging"
19 <sup>th</sup> — 22 <sup>nd</sup> May, 201 <i>7</i>	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 <u>Poster:</u> "Visual symmetry influences the cross-modal correspondence between visual shape and taste"

# **TEACHING**

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	ノトレン	CX	

Oct 2020 -

LECTURES & WORKSHOPS		
16 <sup>th</sup> Mar, 202	1; Guest lecture "Chapter 3: The development of attention" in: "Le développement cognitif de	
22 <sup>nd</sup> Mar, 202	22; l'enfant", Bachelors in Psychology, University of Geneva, CH	
14 <sup>th</sup> Mar 2023	3	
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, 202	Guest lecture and practical, "Preprints and peer-review" in: "Compétences et connaissances scientifiques en psychologie", Bachelors in Psychology, University of Geneva, CH	
13th Oct, 202	Workshop (lecture and practical), "Experimental paradigms made simple (and online) with Psychopy Builder and Pavlovia", University of Zurich, CH	
3rd May, 202	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	
COURSES		
June 2022	<b>Grading assistant</b> on Bachelors in Psychology course: "Numerical activities and their development" [title translated from French], University of Geneva, CH	
	Responsibilities: assigning grades based on performance in exam	
Jan 2022 – present		
Feb 2021 – present	<b>Teaching assistant</b> on Bachelors in Psychology course: "The cognitive development of the child" [title translated from French], University of Geneva, CH ( <b>evaluation result: 3.79 out of 4</b> )  Responsibilities: informing students on course requirements, ad-hoc handling of student queries, giving guest lecture, assistance during practical lessons, creating exam questions, preparing,	

grades based on performance in assignments and final exam

administrating, and invigilating final exam, administrating assignment participation, assigning

Grading asistant on Bachelors in Psychology course: "From theories in cognitive developmental

## **AD-HOC TRAINING**

Apr 2022 – Dec 2022	<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 – June 2023	Kishen Senziani – Research Assistant, University of Geneva, CH
Feb 2022 – June 2023	<b>Anae Motz</b> – research project student (Until June 2022), Research Assistant (Sep 2022 – June 2023), University of Geneva, CH
Oct 2021 – June 2022	<b>Danja Conconi</b> – Master student in Psychology (co-supervision), University of Zurich, CH <b>Franziska Hürlimann</b> – Master student in Psychology (co-supervision), University of Zurich, CH
Sep 2021 - June 2023	<b>Elodie Walter</b> – 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

### **COMMITTEE WORK**

# In thesis committees

June 2022

- Margaux Rollot, candidate for the Masters in Psychology, University of Geneva, CH (external jury member, topic expert): "Multitasking: Is it done differently for children than for adults?" [title translated from French]
- Sarah Da Costa Arezes, candidate for the Masters in Psychology, University of Geneva, CH (external jury member, topic expert): "Multitasking: Is it done differently for children than for adults" [title translated from French]
- Michelle Nicole Santos Quintanilla, candidate for the Masters in Psychology, University of Geneva, CH
  (external jury member, topic expert): "Multitasking: Is it done differently for children than for adults?" [title
  translated from French]

### Sept 2021

- Mégane Marguerat, candidate for the Masters in Psychology, University of Geneva, CH (external jury member, topic expert): "Does the recall performance of 6-11-year olds benefit from attentional refreshment when its use is imposed?" [title translated from French]
- Nada Abou el Maati, candidate for the Masters in Psychology, University of Geneva, CH (external jury member, topic expert): "Imposed attentional refreshment in 6-7 and 10-11 year olds" [title translated from French]

### 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

2023 – ongoing	Swiss Society for Neuroscience (SSN); Ordinary member
2023 - ongoing	The European society for cognitive psychology (ESCOP); Full member
2021 - ongoing	UniGe local node of the Swiss Reproducibility Network; Regular member
2021 - ongoing	The Association of Teaching and Research Staff in Psychology (ACERP) [title translated from
	French]; Regular member and Auditor
2018 - ongoing	Flux: The Society for Developmental Cognitive Neuroscience; Post Doc member
2018 - ongoing	The Swiss Society for Early Childhood Research (SSECR); Full member

# **REVIEWING ACTIVITY**

# <u>Journals</u>

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

### **Grants**

Swiss National Science Foundation (SNSF)

# MEDIA COVERAGE

- Turoman et al. (Under review), F1000Research 2022: DER SPIEGEL
- Turoman & Styles (2017), R. Soc. Open Sci.: London Times, The Conversation, Vice

SCIENCE COMMUNICATION AND EDUCATION		
21st Oct, 2021	Educational event for teachers at the Sécheron orientation cycle, Geneva, Switzerland 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 "My student does not learn: Neurodevelopmental disorders and learning" [title translated from French].	
Apr 2021 – Jul 2022	PRECHECK: A checklist to evaluate COVID-19 preprints  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, 2020	MedGIFT writing workshop  Collaborated on a blog post entitled 'How to 'crack the code' of the developing brain?'	
23 <sup>rd</sup> — 26 <sup>th</sup> May, 2019	Mysteres de l'UniL, University of Lausanne, Lausanne, Switzerland 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)	
15 <sup>th</sup> May, 2019	Jacobs Foundation's Blog on Learning and Development (BOLD) Blog post entitled 'How to bridge the gap between families and the science of learning'.	
17th – 18th Nov, 2018 4th – 5th Nov, 2017	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	
March – May, 2017	Frontiers for Young Minds: Understanding Neuroscience	
	<u>Author on:</u> <b>Turoman N</b> , Merkley R, Scerif G and Matusz P (2017) How Do Kids and Grown-Ups Get Distracted in Everyday Situations? <i>Frontiers for Young Minds.</i> 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).

17th – 19th Nov, 2015 Food Matters Live, ExCel, London, UK

Exhibiting experimental research as part of the Food Sensorium Attraction

18th – 23rd Aug, 2015 Soundislands Festival (SI15), Nanyang Technological University and ArtScience Museum, Singapore

Interactive live demonstration of previous research work