# NORA TUROMAN, PhD

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

# RESEARCH

## **EDUCATION & POSITIONS**

Jan 2024 - Postdoctoral Researcher & Jr. Group Leader (Jacobs Foundation Research Fellow 2022-2024)

present

Jun 2020

Cognitive Aging lab, Center for the Interdisciplinary Study of Gerontology and Lifespan Research

on Vulnerabilities (CIGEV), University of Geneva, Geneva, CH

host: Prof. Matthias Kliegel

Aug 2022 - Consultant (part-time)

Nov 2022 Jacobs Foundation, Zürich, CH

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

Dec 2023 Working Memory, Cognition and Development lab, Faculty of Psychology and Educational Sciences,

University of Geneva, Geneva, CH

host: Prof. Evie Vergauwe

Resulting publications:

1. <u>Turoman, N., Walter, E., & Vergauwe, E. (Under review)</u>. Children's working memory is surprisingly robust to multisensory distraction. *Developmental Science*.

#### Oct 2020 - Postdoctoral Researcher

Dec 2023 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. (2024). Decoding the content of working memory in school-aged children. Cortex, 171, 136-152.
- 2. <u>Turoman, N.</u>, Heyard, R., Schwab, S., Furrer, E., Vergauwe, E., & Held, L. (2023). Constructing and implementing PRECHECK: A checklist to evaluate preprints on COVID-19 and beyond. *F1000Research*, *12*, 588
- 3. <u>Turoman, N.</u>, Vergauwe, E. (In press). 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.

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

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: <u>Turoman, N.</u>, 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: <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

2023	Trainee Professional Development Award (TPDA). Society for Neuroscience, USA (free registration and
	2,500 USD to offset travel costs)

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

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 (\* = co-first author)

### **Registered Reports**

1. **Turoman**, **N.**, Vergauwe, E. (In press). 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

2. **Turoman, N.**, Walter, E., & Vergauwe, E. (Under review). Children's working memory is surprisingly robust to multisensory distraction. *Developmental Science*.

Preprint: https://psyarxiv.com/q8epg

Open data, materials, and code: https://osf.io/h8sp5/

3. **Turoman, N.**, Fiave, P.A., Zahnd, C., deBettencourt, M., & Vergauwe, E. (2024). Decoding the content of working memory in school-aged children. *Cortex*, 171, 136-152.

<u>Preprint: https://www.biorxiv.org/content/10.1101/2023.02.10.527990v1.abstract</u> <u>Open data, materials, and code: https://osf.io/jeh67/</u>

4. **Turoman**, **N.\***, Heyard, R.\*, Schwab, S., Furrer, E., Vergauwe, E., & Held, L. (2023). Constructing and implementing PRECHECK: A checklist to evaluate preprints on COVID-19 and beyond. *F1000Research*, *12*, 588

- 5. 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.
- 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/
- 7. **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
- 8. **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
- 9. **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
- 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.
- 11. 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.
- 12. Tivadar, R.I., Retsa, C., **Turoman**, **N.**, Matusz, P.-J., and Murray, M.M. (2018). Sounds enhance visual completion processes. *Neuroimage*, 179, 480-488.
- 13. **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: <a href="https://osf.io/qn593/">https://osf.io/qn593/</a>
- 14. 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: <a href="https://osf.io/xufmd/">https://osf.io/xufmd/</a>
- 15. **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**

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21 <sup>st</sup> Nov, 2023	<b>Bavelier lab.</b> Geneva, Switzerland. "Multisensory distraction effects on working memory performance"	
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

CONFERENCE PRESENTATIONS	
11 <sup>th</sup> – 15 <sup>th</sup> Nov,	Neuroscience 2023 of the Society for Neuroscience (SfN), Washington, DC, USA
2023	Poster: "Decoding children's working memory contents with EEG"
6 <sup>th</sup> – 9 <sup>th</sup> Sep, 2023	European Society for Cognitive psychology (ESCOP) 2023, Porto, PT  Blitz talk: "Children's working memory is not more susceptible to distraction than adults' working memory"  International Multipapears Research Forum (IMPE) 2023, Proceeds RE
27 <sup>th</sup> — 30 <sup>th</sup> Jun, 2023	International Multisensory Research Forum (IMRF) 2023, Brussels, BE <u>Poster</u> : "Surprising new insights on the effects of multisensory distraction on developing working memory"
7 <sup>th</sup> – 9 <sup>th</sup> Sep, 2022	Flux Congress 2022, Paris, FR  Poster: "Can we decode school-aged children's working memory contents? Our proof-of-concept study suggests so."
18 <sup>th</sup> 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, 2019	Rovereto Attention Workshop, Rovereto, IT  Poster: "Educational outcomes depend both on visual and multisensory control of selective attention"
29 <sup>th</sup> Aug – 1 <sup>st</sup> Sep, 2019	Flux Congress 2019, New York, NY, USA  Poster: "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
	Poster: "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, 2018	Lemanic Neuroscience Annual Meeting (LNAM) 2018, Les Diablerets, CH <u>Poster:</u> "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 <u>Poster:</u> "Taking attention back to school: Multisensory processes influence developing visual attention control"
1 <sup>st</sup> – 2 <sup>nd</sup> Sep, 2017	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, 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 <u>Poster:</u> "Visual symmetry influences the cross-modal correspondence between visual shape and taste"

# **TEACHING**

# **LECTURES & WORKSHOPS**

14 <sup>th</sup> Mar 2023; 22 <sup>nd</sup> Mar, 2022; 16 <sup>th</sup> Mar, 2021	Guest lecture "Chapter 3: The development of attention [title translated from French]" in: "The cognitive development of the child [title translated from French]", Bachelors in Psychology (around 200 students per semester), University of Geneva, CH
31 <sup>st</sup> May, 2022	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 (around 30 participants), CH

9 <sup>th</sup> May, 2022	Guest lecture and practical, "Preprints and peer-review" in: "Scientific skills and knowledge in psychology [title translated from French]", Bachelors in Psychology (around 200 students per semseter), University of Geneva, CH
13 <sup>th</sup> Oct, 2021	Workshop (lecture and practical), "Experimental paradigms made simple (and online) with Psychopy Builder and Pavlovia", University of Zurich (around 20 participants), CH
3 <sup>rd</sup> May, 2021	Guest lecture and practical, "Preprints and peer-review: a deep dive" in: "Scientific skills and knowledge in psychology [title translated from French]", Bachelors in Psychology (around 200 students per semester), University of Geneva, CH

# **COURSES**

COOKSE2	
June 2022	Grading assistant 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 — Dec 2023	<b>Exam assistant</b> on Bachelors in Psychology course: "Introduction to developmental cognitive psychology" [title translated from French], University of Geneva, CH
	Responsibilities: administrating and invigilating final exam
Feb 2021 – Dec 2023	<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 database, preparing, administrating, and invigilating final exam, assigning grades based on performance in assignments and final exam
Oct 2020 – Oct 2023	<b>Grading assistant</b> on Bachelors in Psychology course: "From theories in cognitive developmental psychology to practice" [title translated from French], University of Geneva, CH Responsibilities: assigning grades based on performance in assignments

# **AD-HOC TRAINING**

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

# **SERVICE**

# **EDITORIAL**

2024 **Journal for Reproducibility in Neuroscience** – Editorial board

# INSTITUTIONAL RESPONSIBILITIES

Oct 2023 – present	Treasurer for The Association of Teaching and Research Staff in Psychology (ACERP) [title translated from French], University of Geneva, CH
May 2023 – present	Substitute representative of research and teaching staff in the Training and Curriculum Evaluation Committee (COMEVAL) [name translated from French], University of Geneva, CH
Apr 2023	Organised ad-hoc colloquium as part of the Master seminar in Cognitive and Developmental Psychology [title translated from French]; Speaker: Laura-Isabelle Klatt, University of Geneva, CH
Oct 2022 – Oct 2023	Auditor for The Association of Teaching and Research Staff in Psychology (ACERP) [title translated from French], University of Geneva, CH
May 2022	Internal jury member (representing research and teaching staff) on hiring committee for Andreas Ihle, candidate for Assistant Professor in Psychology of Lifespan

**Development**, University of Geneva, CH: "Development of reserves and vulnerability: an interdisciplinary lifespan perspective"

### **SUPERVISION**

<u>Master students</u>	
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
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
Research assistants	
Sep 2022 - June 2023	Kishen Senziani – University of Geneva, CH
Feb 2022 - June 2023	<b>Anae Motz</b> – research project student (Until June 2022), Research Assistant (Sep 2022 – June 2024), University of Geneva, CH
Sep 2021 – June 2023	<b>Elodie Walter</b> – intern (until Dec 2021), Research Assistant (Feb 2022 – June 2024), University of Geneva, CH
Sep 2021 - June 2022	Clélia Zahnd —University of Geneva, CH

## THESIS JURIES

June 2022

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

### September 2021

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

## **SCIENTIFIC SOCIETIES**

2023 — ongoing	The Psychonomic society; 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 (auditor: Oct 2022 – Oct 2023, treasurer Oct 2023 – present)
2018 - ongoing	The Swiss Society for Early Childhood Research (SSECR); Full member

### **REVIEWING ACTIVITY**

### **Journals**

- Journal of Experimental Psychology: Learning, Memory and Cognition
- Advances in Cognitive psychology
- Developmental Psychology
- Frontiers in Psychology
- Multisensory Research
- Psychological Research
- Wiley Interdisciplinary Reviews: Cognitive Science

Neurolmage

## **Grants**

• Swiss National Science Foundation (SNSF)

# MEDIA COVERAGE

- Turoman et al. (2023), F1000Research: DER SPIEGEL
- Turoman & Styles (2017), R. Soc. Open Sci.: London Times, The Conversation, Vice

# SCIENCE COMMUNICATION AND EDUCATION

	NICATION AND EDUCATION
21st Oct, 2021	Educational event for teachers at the Sécheron secondary school, 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 is not learning: 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> – 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	<u>L'Hôpital des Nounours</u> , 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? <i>Frontiers for Young Minds.</i> 5(13).
17 <sup>th</sup> – 19 <sup>th</sup> Nov, 2015	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, 2015	Soundislands Festival (SI15), Nanyang Technological University and ArtScience Museum, Singapore