

Institut de la Vision  
Université Paris Sorbonne  
13 rue Moreau, 75012 Paris

# Adrien Chopin

Ph.D in Psychology  
French Nationality

adrien.chopin@gmail.com  
<https://adrienchopin.com>  
<http://vertsluisants.fr/>

## Research

### Interests

Stereoscopic vision, 3D vision, aging, amblyopia, learning, stereoblindness, action video games, falls, virtual reality, fMRI, newborn cognition, media and meditation effects, binocular vision and rivalry

### Approaches

Psychophysics, fMRI, pathology, development, remediation (gaming, perceptual learning), virtual reality, meta-analyses, best-evidence synthesis, computational models

### Academic positions

**Université Paris Sorbonne (France)**  
Sep 2019 - now

Postdoctoral scholar under an ANR-Essilor-SNCF grant in Angelo Arleo's team, at Institut de la Vision

- *Demonstrated the efficiency of combined approaches to estimate non-monotonic psychometric functions and applied it to a new stereoacuity test*
- *Analyzed experimental data showing that newborns differentiate direct and faraway gazes*

**Université de Genève (Switzerland)**  
Oct 2017 – Aug 2019

Research and Teaching Fellow (Maitre-Assistant) under Daphne Bavelier's chair

- *Meta-analysis showing that 20h of gaming are causing perceptual gains*
- *Reviewed the literature on clinical stereotests and estimated a 7%-stereoblindness prevalence*
- *Investigated learning-to-learn framework in a large-scale pre-registered video game intervention and found that action video games increase learning speed*
- *Failed to show the importance of stereovision for driving a real bike in a VR environment*
- *Developed a new stereoblindness test*



**University of California, Berkeley (USA)**  
June 2016 – Sep 2017



Postdoctoral scholar under a NEI grant

- *Demonstrated global stereo-recovery from edge-stereogram training*
- *Investigated the phenomenon of amblyopic rivalry*

**École Normale Supérieure, Paris (France)**

Postdoctoral scholar under an EU Marie Curie IOF grant with Pascal Mamassian

CNRS, Paris (France)  
Mar 2015 – Feb 2016



- Investigated pRF retinotopy in amblyopia and failed to show (fMRI) cortical plasticity during stereo-recovery
- Demonstrated speech audio-visual integration in newborns

University of California, Berkeley (USA)  
CNRS & Paris Descartes, Paris (France)  
Mar 2014 – Feb 2015



- Postdoctoral scholar under an EU Marie Curie IOF grant, with Dennis Levi and Michael Silver
- Demonstrated binocular non-stereoscopic cues in clinical stereotests
  - Developed a complete and modular pRF pipeline for processing fMRI retinotopy

Université de Genève (Switzerland)  
Dec 2012 - Aout 2013  
Dec 2013 – Jan 2014



- Postdoctoral scholar with Daphne Bavelier in collaboration with Dennis Levi and David Knill
- Showed that the stereoscopic system computes relative disparities from absolute disparities
  - Discovered dressmakers' high stereo-abilities

University of Oxford,  
Oxford (UK)  
Sep – Nov 2012



- Visiting scholar in Christopher Summerfield's lab
- Failed to replicate predictive adaptation in face rivalry and to apply the paradigm in the fMRI

CNRS & Paris Descartes,  
Paris (France)  
Feb – June 2012



- Postdoctoral scholar with Pascal Mamassian
- Tested predictions of predictive adaptation framework with mixed results

Vanderbilt University, Nashville (USA)  
Dec 2011 – Jan 2012  
Sep - Dec 2010



- Visiting Research Fellow with Randolph Blake
- Failed to show transfers of adaptation from a bistable stimulus to another, suggesting no common step
  - Showed that stereopsis and rivalry rely on illusory rather than real orientations in tilt illusions

University of St. Andrews, Scotland (UK)  
Aug 2007



- Internship with Julie Harris
- Showed an absence of role for cyclovergence and horopter tilt in mysterious depth biases

## Education

Université Paris Descartes, Paris (France)  
CNRS, Paris (France)  
2008-2012  
Credited: Mar 28, 2012  
Highest academic distinction:  
*Très honorable avec les félicitations du Jury à l'unanimité.*

- Ph.D in Psychology with Pascal Mamassian
- Created the predictive adaptation framework
  - Demonstrated implicit and probabilistic computations in human visual ambiguous perception (effect of usefulness)
  - Showed that individual bistable preferences could be created by these probabilistic computations

École Normale Supérieure, Paris (France)  
Université Paris Descartes, Paris (France)  
EHESS, Paris (France)  
2006-2008

- Master (equivalent to M.S.) in **Cognitive Sciences**, called Cogmaster  
Thesis : investigated psychophysics of human binocular rivalry, demonstrating effects of usefulness

Ranked #1, graduated summa cum laude

**Université Paris Descartes, Paris (France)**  
2003-2006

Graduated magna cum laude

**Université Paris Diderot, Paris (France)**  
2002-2003

**Université Pierre et Marie Curie, Paris (France)**  
2001-2002

Licence (equivalent to B.S.) in **Psychology**

*The French degree involves a detailed knowledge of clinical psychopathologies.*

Non-degree medical studies in Medicine school

Non-degree preparation school to medical studies

---

## Publications in international peer-reviewed journals

[5y-IF is the Impact Factor at 5 years]

1. Guellaï, B., Hausberger, M., **Chopin**, A., & Streri, A. (2020). Premises of social cognition: Newborns are sensitive to a direct versus a faraway gaze. *Scientific Reports*, *10*(1), 9796. [IF 4.1]
2. **Chopin**, A., Bediou, B. & Bavelier, D. (2019). Altering perception: the case of action video gaming. *Curr. Opin. Psychol.* **29**, 168–173 (2019). [Citescore 2017: 3.18]
3. **Chopin**, A., Chan, S. W., Guellaï, B., Bavelier, D., & Levi, D. M. (2019). Binocular non-stereoscopic cues can deceive clinical tests of stereopsis. *Scientific Reports*. **9**, 5789. [IF 2016 ISI: 4.3]
4. **Chopin**, A., Bavelier, D., & Levi, D. M. (2019). The prevalence and diagnosis of ‘stereoblindness’ in adults less than 60 years of age: a best evidence synthesis. *Ophthalmic and Physiological Optics*, *39*(2), 66–85. <https://doi.org/10.1111/opo.12607> [IF 2017 ISI: 2.3 – OPO’s 10% most read 2018-2019]
5. **Chopin**, A., Levi, D., Knill, D., & Bavelier, D. (2017) Dressmakers show enhanced stereoscopic vision. *Scientific Reports*. *7*:3435. Doi: 10.1038/s41598-017-03425-1 [IF 2015 6.75 – Altmetrics – currently 716<sup>th</sup>/265,000 articles of same age, for online attention]
6. **Chopin**, A., Levi, D., Knill, D., & Bavelier, D. (2016). The absolute disparity anomaly and the mechanism of relative disparities. *Journal of Vision*, *16*(8), 2. [5y-IF 2015: 2.5]
7. Guellaï, B., Streri, A., **Chopin**, A., Rider, D., & Kitamura, C. (2016). Newborns’ Sensitivity to the Visual Aspects of Infant-Directed Speech: Evidence From Point-Line Displays of Talking Faces. *Journal of Experimental Psychology: Human Perception and Performance*. DOI: 10.1037/xhp0000208 [5y-IF 2015: 2.85]
8. **Chopin**, A., Mamassian, P. (2013) Response: Genuine long-term positive aftereffects. *Current Biology*, *23*(10): R439. [5y-IF 2014: 10.1]
9. **Chopin**, A., Mamassian, P., & Blake, R. (2012). Stereopsis and rivalry are based on perceived rather than physical orientations. *Vision Research*, *63*: 63-68. [5y-IF 2014: 2.5]
10. Harris, J. M., **Chopin**, A., Zeiner, K. M., & Hibbard, P. B. (2012). Perception of relative depth interval: systematic biases in perceived depth. *The Quarterly Journal of Experimental Psychology*, *65*(1), 73-91. doi:10.1080/17470218.2011.589520. [IF 2014: 2.2]
11. **Chopin**, A., & Mamassian, P. (2012). Predictive properties of adaptation. *Current Biology*, *22*(7): 622-626. doi:10.1016/j.cub.2012.02.021. [5y-IF 2014: 10.1]
12. **Chopin**, A., & Mamassian, P. (2011). Usefulness Influences Visual Appearance in Motion Transparency Depth Rivalry. *Journal of Vision*, *11*(7). doi:10.1167/11.7.18. [5y-IF 2015: 2.5]
13. **Chopin**, A., & Mamassian, P. (2010). Task usefulness affects perception of rivalrous images. *Psychological Science*, *21*(12): 1886-93. [5y-IF 2014: 6.2]

---

## Publications in national peer-reviewed journals

Esseily, R., Guellai, B., **Chopin**, A., Somogyi, E. (2017) L'écran est-il bon ou mauvais pour le jeune enfant? *Spirale*, 3(83): 28-40. doi: 10.3917/spi.083.0028

---

## Proceedings and conferences

1. Zhang, R. Y., **Chopin**, A., Shibata, K., Lu, Z. L., Jaeggi, S. M., Buschkuhl, M., ... & Bavelier, D. (2020). "Learning to learn" as a new path for learning generalization in working memory: the case of action video game play. *Journal of Vision*, 20(11), 1697-1697. [Poster VSS]
2. **Chopin** A., Bavelier D., Levi D. (2019). The prevalence and diagnosis of stereoblindness: A best evidence synthesis. Poster presented at the Vision Sciences Society, St Pete's Beach, Florida, USA. [Poster VSS]
3. Shibata K., **Chopin** A., Zhang R & Bavelier D. (2018) Learning to Learn: A generalised route to learning; Talk presented at UNIGE Neuroscience Masters' Day; Campus Biotech, Geneva Switzerland.
4. Shibata K., **Chopin** A., Zhang R., Todeschini J., Martins M., Poma P., Denkinger S., Lu Z.L., Jaeggi S., Buschkuhl M., Green C.S. & Bavelier D. (2018) Method to study learning generalisation through training; Poster presented at UNIGE Neuroscience Masters' Day; Campus Biotech, Geneva Switzerland.
5. McDermott, K. C., **Chopin**, A., Ptukha, A., & Mamassian, P. (2015). History effects in perception after manipulating the statistics of the environment. *Journal of Vision*, 15(12):392. doi: 10.1167/15.12.392. [Poster VSS]
6. **Chopin**, A., Knill, D. C., Levi, D. M., & Bavelier, D. (2014). Stereoscopic depth from absolute and relative disparities. *Journal of Vision*, 14 (10 ), 969. doi:10.1167/14.10.969 [Poster VSS]
7. Mamassian, P., & **Chopin**, A. (2012). Long-term recalibration of orientation perception. *Perception*, 41, supplement: 42. [Talk ECVF]
8. **Chopin**, A., Mamassian, P., & Blake, R., (2011). Transition between stereopsis and binocular rivalry is based on perceived, rather than physical, orientation. *Journal of Vision*, 11(11):301. [Poster VSS]
9. **Chopin**, A., Capps, M., & Mamassian, P. (2010). Expectation from temporal sequences influences binocular rivalry [Abstract]. *Journal of Vision*, 10(7):347. [Poster VSS]
10. **Chopin**, A., & Mamassian, P. (2009). Task demands can affect binocular rivalry dynamics [Abstract]. *Journal of Vision*, 9(8):299, 299a. [Poster VSS]
11. Harris, J., **Chopin**, A., & Zeiner, K. (2008). Individual differences in depth perception: are biases correlated with eye position? [Abstract]. *Journal of Vision*, 8(6):93, 93a. [Poster VSS]

---

## Academic talks

2020 – Invited talk – Michel Paques - Centre d'investigation clinique - Hôpital des 15-20 (Paris). *How to measure stereoscopic vision and why?*

2019 – Geneva Amblyopia Meeting (Geneva). *How to measure stereoblindness and stereovision accurately in rehabilitation protocols?*

2017 - Invited talk – Angelo Arleo – Institut de la Vision (Paris). *Bringing completely stereoblind amblyopic patients to stereo-recovery.*

2017 - Invited talk – Austin Roorda – Oxyopia Seminar, School of Optometry, UC Berkeley (CA). *Bringing completely stereoblind amblyopes to stereo-recovery.*

2017 - Invited talk – Zoe Kourtzy & John Mollon – Rank Prize Funds Symposium on Learning to See: From Retinal to Brain Computation – Grasmere (UK). *Recovery of stereopsis in completely stereoblind amblyopes.*

2016 - Invited talk – Mark Wexler – LPP, Paris (France). *The mechanism of relative disparity.*

2016 - Invited talk – Carole Peyrin – LPNC, Grenoble (France). *The mechanism of relative disparity.*

2015 – Invited talk – Guillaume Masson / Frederic Chavanne – INT, Marseille (France). *The absolute disparity anomaly and the mechanism of relative disparities.*

2015 – Invited seminar – Simon Thorpe / Yves Trotter – Cerco, Toulouse (France). *The absolute disparity anomaly and the mechanism of relative disparities.*

2015 – Invited talk – Martin Banks, University of California, Berkeley (USA). *Absolute and relative disparities.*

2010 - Annual meeting of the doctoral school 261, hosted in Paris (France). *L'utilité d'un percept influence la bistabilité dans la transparence de mouvement.*

2009 - Annual national meeting of the French research in vision, the GDR Vision hosted in Toulouse (France). *Percept usefulness influences bistability in motion transparency.*

2008 - National workshop on perceptual bistability hosted in Paris, Ecole Normale Supérieure (France). *Expected utility in binocular rivalry.*

---

## Grants, awards and competitions

2019-2023: co-leader of a work-package in the industrial grant Silversight II (Angelo Arleo, France)

2019: workshop co-organizer through a grant from the FNS (\$12800, with Daphné Bavelier, Switzerland).

2016: Qualification to the functions of the academic position of “*Maître de Conférence*”; national competition, 2016-2020, 69<sup>th</sup> section: Neurosciences.

2013-2015: EU Marie-Curie grant (IOF – Career development) for two-year funding at the University of California, Berkeley (USA) and Ecole Normale Supérieure (Paris, France), \$250,000.

2012: Qualification to the functions of the academic position of “*Maître de Conférence*”; national competition, 2012-2016, 16<sup>th</sup> section: Psychology.

2012: *Prix de thèse*, awarded once a year for the best Ph.D thesis in the Cognitive Science, Psychology, Neurosciences and Computer Science fields of the Université Paris Descartes.

2008-2011: Ph.D grant from the French Research Ministry (3-year funding – 85,000\$)

2008-2011: Teaching grant from the Université Paris Descartes (for 3-year – 15,000\$)

2010: Doctoral travel grant from the Université Paris Descartes. Travelled to Randolph Blake Lab, Vanderbilt University, Nashville, USA for three months of research on binocular rivalry.

---

## Collaborations

### Active academic collaboration groups (Ph.D students and researchers)

1. Measuring stereopsis in older adults  
Angelo Arleo, INSERM, Paris (France)  
Daphne Bavelier, University of Geneva (Switzerland)
2. Effect of action videogaming on learning speed  
Ru-Yuan Zhang, Shanghai Jiao Tong University, Shanghai (Chine)

- Kengo Shibata, Oxford University (UK)  
Zhong-Lin Lu, NYU Shanghai (China)  
Susanne Jaeggi, University of California, Irvine, CA (USA)  
Martin Buschkuhl, MIND Research Institute, CA (USA)  
Shawn Green, University of Wisconsin-Madison, WI (USA)  
Daphne Bavelier, University of Geneva (Switzerland)
3. Attentional changes in virtual-reality immersion  
Anna-Flavia Di Natale, Università degli studi di Milano-Bicocca (Italy)  
Emmanuela Bricolo, Università degli studi di Milano-Bicocca (Italy)  
Daphne Bavelier, University of Geneva (Switzerland)
  4. Amblyopic rivalry  
Claudia Lunghi, Ecole Normale Supérieure, Paris (France)  
Concetta Morrone, Pisa University, Pisa (Italy)  
Dennis Levi, University of California, Berkeley (USA)
  5. EcoRescue – gaming for increasing attention  
Swann Pichon, Université de Genève (Switzerland)  
Daphné Bavelier, Université de Genève (Switzerland)
  6. Virtual reality gaming to trigger stereopsis recovery  
Daphné Bavelier, Université de Genève (Switzerland)  
Dennis Levi, University of California, Berkeley (USA)  
Ben Backus, SUNY, Vivid Vision, NY/CA (USA)  
Vivid Vision (company, USA)
  7. Neural correlates of stereopsis recovery  
Michael Silver, University of California, Berkeley (USA)  
Jian Ding, University of California, Berkeley (USA)  
Eunice Yang, University of California, Berkeley (USA)  
Dennis Levi, University of California, Berkeley (USA)  
Jacob Sheynin, McGill University, Montreal (Canada)  
Justin Theiss, University of California, Berkeley (USA)
  8. Effects of screens on children  
Rana Esseily, Université Paris Ouest Nanterre La Défense, Nanterre (France)  
Bahia Guellai, Université Paris Ouest Nanterre La Défense, Nanterre (France)  
Eszter Somogyi, University of Portsmouth, Portsmouth (UK)

Former collaborations:

Robert Hess, McGill University, Montreal (Canada)  
Jacob Sheynin, McGill University, Montreal (Canada)  
Kyle McDermott, University of California, Davis (USA)  
Pascal Mamassian, Université Paris Descartes & CNRS (France)  
Arlette Streri, Université Paris Descartes, Paris (France)  
David Knill, University of Rochester (USA)  
Randolph Blake, Vanderbilt University (TN, USA)  
Jan Brascamp, Utrecht University (the Netherlands)  
Christopher Summerfield, University of Oxford (UK)  
Raymond van Ee, Utrecht University (the Netherlands)  
Julie Harris, University of St. Andrews (UK)  
Paul Hibbard, University of St. Andrews (UK)  
Katharina Zeiner, Stuttgart Media University (Germany)

## Teaching

Year	UE	Location	Type	Hours	Audience
2020	Physiological Optics	4	CM	3.5h	Master students & Opticians
	Neuro-ergonomics	3	TD	9h	Master 1 Ergonomics
	Cognitive Sciences	3		12h	B.S. students
2019	Neurosciences	3		6h	Master 1 Ergonomics
	Continuing education	2		6h	Teachers
2011	Differential Psychology	1		26h	B.S. students
	Experimental Psychology			52h	
2010	Experimental Psychology			52h	
2009	Experimental Psychology			52h	
	Differential Psychology		26h		
<b>Total:</b>					

### Types

CM = Lecture (Cours Magistral in amphitheatre) – TD = Seminar (Travaux Dirigés)

### Locations

- 1 - Université Paris Descartes, Institut de Psychologie, Boulogne
- 2 - Département de l'Instruction Publique, Service Ecran-Media, Switzerland
- 3 - Université Paris Descartes, Faculté des Sciences Fondamentales et Biomédicales
- 4 – Université Paris Saclay, Orsay

### Full list

2020 – 3.5h – initial optometry formation and optician continuous education - Master Ingénierie de la Santé, parcours Sciences de la Vision, UE Optique physiologique, *Cognition visuelle*, Location 4

2020 – 9h - Master STS, Mention Ergonomie, *Introduction à la neuroergonomie*, and *Introduction to Neurosciences*, EROBM080, Location 3

2020 – 12h – Licence 2 Biomédicale et Bi-Licence 2, *Sciences Cognitives 1*, SA04M070, Location 3

2019 – 6h – Master STS, Mention Ergonomie, *Introduction to Neurosciences*, "Perception-Attention" and "Memory-Langage", Location 3

2019 – 6h – continuing education for teachers, *The effect of screens on intellectual development*, Location 2

2008-2011 – 208h - Licence 1 de Sciences de la Santé, mention Psychologie, teaching assistant ("Monitorat" at CIES Paris Sorbonne), Location 1

**Mentoring:** mentoring 1 Ph.D. student, 11 graduate students (including a successful honor thesis) and 10 undergraduate students.

**Qualification** for the French position *Maître de Conférence*: 16<sup>th</sup> section (2012: Psychology) and 69<sup>th</sup> section (2016: Neurosciences)

## Service

2019-06: co-organized the 2019 Geneva Amblyopia Meeting, an international 2-days workshop gathering the leaders of visual interventions in amblyopia, with a grant from the Swiss FNS.

2018-2019: co-organized the 2019 Festival of Education of Switzerland, in Geneva (<https://printemps-education.ch/festival-education/>)

2015-2017: created an fMRI-analysis pipeline (Pipeline\_JAS) - a set of matlab automated modules for pre-processing, segmentation of fMRI data in mrVista/Freesurfer/FSL, pRF retinotopy and visualization. Shared on Github ([https://github.com/Stereo-Boy/Pipeline\\_AS](https://github.com/Stereo-Boy/Pipeline_AS)) and wrote an extensive wiki documentation for it.

2014-2016: Organized the lab system for enrolling and screening amblyopic patients with the eye clinic.

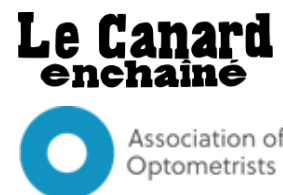
2010 – 2011: elected member at the Doctoral Council of Paris Descartes University.

2010: Organized of the LPP's Perception Journal Club.

2007-2008: Founded a student seminar in the Cogmaster.

**Reviewing:** peer-reviewing for the following scientific journals: Optometry and Vision Science, Plos Computational Biology, Current Biology, Nature Group: Scientific Reports, Journal of Vision, Vision Research, Frontiers in Human Neuroscience, The International Journal for the Psychology of Religion

## Media presence & General public dissemination







- Nov 2020: intervention on Belgian TV channel RTL-TVI (weekly news "[c'est pas tous les jours Dimanche](#)") about the reuse of surgical masks during the COVID-19 pandemic (for Adios Corona).
- Oct 2020: Press conference and interviews with [l'Express](#), [le Monde](#), [le Canard Enchaîné](#), [Que Choisir](#), and [France Inter](#) about the reuse of surgical masks during the COVID-19 pandemic (for Adios Corona).
- Dec 2018: Interviewed for "Ca m'intéresse" (French monthly magazine 200.000 readers/month).
- Sept 2018: Interviewed for Libraradio, broadcasted on Frequence Banane (local Swiss-French radio).
- June 2018: [Blog article at Ecole & Bien-être](#) about an earlier preview showings talk
- May 29 2018 and June 6: Invited talk at preview showings of the documentary "Le Cerveau des Enfants" about how we can use neuroscience discoveries to help children learn and grow cognitive skills (*Cinelux, Geneva*) – broad audience.
- June 2017: Our study about dressmaker's enhanced stereovision received world coverage. Interviewed for BBC (World Service *Healthcheck* – 260 millions listeners/month), CBS News Radio (*Science Today* - 260 millions listeners/month), KBCS news radio, NPR (*Health Shots* – 84 millions listeners/month), BYU radio (*Top of the Mind with Julie Rose*), the AOP (*Optometry Today*), and *Inside Science*. From Altmetrics, >58 news outlets reported our study.
- Jan 2017: Interviewed for PC Gamer (22.000 readers a month) about visual perception in video games. *How many frames per second can the human eye really see? Alex Wiltshire*
- October 2016: Interviewed for the *Berkeley Optometry Magazine* about the efficiency of stereopsis recovery and one of my recovered patient. *Discovering the World's Depth Later in Life. Gordy Slack*
- May 2016: published two articles about open-access for the biology website BiteSize Bio (200.000 readers a month). *How to Access All Science for Free? / Five Truths About Science Publishing or Why All Science Should be Free. Adrien Chopin*
- Apr 2016: published an article on the cognitive impact of TV and screens on very young children, including the mechanism, for Coginnov (non-profit), illustrated by Fiamma Luzzati. *Les écrans en quelques maux. Adrien Chopin, Bahia Guellai and Nawal Abboub.*
- Mar 2016: Interviewed for the French magazine "La Recherche" (65.000 readers a month), on stereoscopic vision in insects and the reason why it tells us something interesting. *La mante religieuse, nouveau modèle d'étude de la vision 3D? Laurence Dennis.*
- 2016: I created or expanded the following entries on Wikipedia (under the name Adrien16): Fusion binoculaire (FR – 100%); Rivalité binoculaire (FR – 98%); Amblyopie (FR - 25% - 64.000 readers/year); Binocular rivalry (EN - 10% -14.000 readers/year); Amblyopia (EN - 6.2% - 280.000 readers/year);
- Sep 2013: Interviewed for the Swiss radio RTS, la Première (channel), CQFD, on treating amblyopia and stereoblindness with dichoptic action video games. *Les bienfaits des jeux vidéo pour la santé. Bastien Confino.*
- Mar-May 2011: Consulting for a diffusion project about Cognitive Sciences targeted to elementary school with the organization "la Main à la Pâte" (coordination: Elena Pasquinelli) about the impact of screens on children cognition

Mar 2009-2010-2011: Co-organized a scientific exhibition (surface 50m<sup>2</sup>), on 3 consecutive years, hosted at the French Forum of Cognitive Sciences, Paris, about face perception, self-perception, neuro-imagery, change blindness, split-brain and language development. The framework was a DCST project that we wrote (financed by the CIES Sorbonne, Jussieu, Nanterre and Créteil), named “Les Sciences Cognitives Expliquées”.

Feb 2010: Series of speeches and demonstrations for the non-profit organization “Science Académie” about Brain, Philosophy and Damages, to a public of high-school students in Paris. “Poverty of vision revealed by change blindness and inattentive blindness”.

Nov 2008: Co-organized a full-day exhibition at the Paris Science Festival for the RISC and Cognivence (about bistability).

Apr 2008: Co-organized the 7th French Forum of Cognitive Sciences in Paris.

Nov 2007: Series of speeches and demonstrations on a full day for the 16th national Science Festival in Paris, to a broad audience public. “What does perceptual bistability teach us?”

May 2007 and 2006: Series of demonstrations on a full day for the 5th and the 6th French Forum of Cognitive Sciences in Paris to a broad audience public. “What do illusions tell us?”

2007-2010: Elected member of the administration council of the student organization Cognivence (Association of the Students in Cognitive Sciences from Ile de France).

## Professional skills

**Methods:** Psychophysics, computational models, RCT, test properties, development

**Statistical Analysis:** inferential statistics (frequentist and Bayesian), linear and non-linear models, parametric and non-parametric tests, fMRI permutation tests / cross-validation, classification, bootstrap. Statistica/matlab/SPM.

**Clinical patients:** amblyopia treatment; basic optometry procedures; clinical recruitment; ethics

### Certified trainings and Ethics

Safety training course and standard operating procedures (2014-2017) and user training course (2015-2017) - Li Ka Shing Brain Imaging Center (UCB, USA).

Group 1 Biomedical research investigators and key personnel – score 92% (CITI program 2014)

Sexual Violence and Sexual Harassment Prevention Training for Staff – score 100% (UCB e-course 2015, 2017)

Ethical Values and Conduct (UCB e-course 2015), Conflict of Interest for Researchers Briefing (COIR UCB e-course 2017), Cyber Security Awareness (UCB e-course 2015, 2017)

**Technical apparatus:** expertise in MRI scanning (operator for 3T Siemens Trio scanner), virtual reality sets, stereo-optical devices, eye tracking systems (Eyelink II, Arrington VisualSystem, Viewpoint), photometers, clinical stereotests, acuity tests, visual field perimeters, autorefractors

**MRI data analysis:** MVPA (TdT), pRF and retinotopy (mrVista, FSL, Freesurfer), statistical analysis (SPM).

**Languages:** French (native), English (fluent), German (some understanding)

**Programming:** Matlab & PsychToolBox (advanced), Python (beginner)

**Web design:** HTML/CSS/Javascript (Front-End), PHP/SQL (Back-End server and database), CMS.

**Lab managing:** project managing of medium-size teams, lab wiki, journal clubs, collaborative tools

## Personal commitment & Activism

I am strongly committed and active in the following causes:

- ❖ Universal access to science, as provider of the webpage <https://tinyurl.com/scihubserver> (~24,000 visits/month)
- ❖ Knowledge spread and fact-checking, through the creation of the Coronavirus Fact-Checking Taskforce (a collaborative scientific database about COVID-19: <https://zici.fr/49> and a discussion group: <https://www.facebook.com/groups/2729014567322527/>), and through content and edition at [adioscorona.org](http://adioscorona.org) (a scientific expert advice website translated in 10 languages).
- ❖ Ecology and efficient altruism, as founder of the collective Verts-Luisants - <http://vertsluisants.fr> - promoting efficient altruistic donations, ecology and zero waste
- ❖ Zero-waste, as creator of the Facebook Zero-Waste challenge - <https://tinyurl.com/y5urg8o3>
- ❖ Efficient education, as former website manager for Le Printemps de l'Education – Suisse - <https://printemps-education.ch/> - (2018-2019) - a Swiss non-profit for promoting innovative, alternative or efficient education, and co-organizer of the 2019 Festival de l'Education.