## **Current Position**

## August 2021- Assistant Professor, Tenure-track Department of Neuroscience, AMERICAN UNIVERSITY Center for Neuroscience and Behavior, AMERICAN UNIVERSITY

## Education

2016-20	<i>Qualification aux fonctions de Maître de Conférences</i> (qualification to the position of Assistant Professor) in Psychology (Section 16) and Neuroscience (Section 69), France
2015	UNIVERSITY OF GRENOBLE-ALPS, France PhD in Cognitive Sciences, Psychology, and Neuro-Cognition – defended 11/26/2015
2012	ÉCOLE NORMALE SUPÉRIEURE, Paris, France Master of Science in Cognitive Sciences, Neuroscience track, <i>mention bien</i> (magna cum laude) E.N.S. Diploma in Cognitive Sciences
2010	<i>Agrégation</i> of Biology-Geology (competitive examination, national rank : 14 out of 1766 candi- dates, 80 admitted), prepared at the UNIVERSITY OF PARIS-SUD, Orsay, France
2008	PIERRE AND MARIE CURIE UNIVERSITY, Paris, France <i>Licence</i> (Undergraduate degree) in Biology, <i>mention bien</i> (magna cum laude), prepared at the ÉCOLE NORMALE SUPÉRIEURE, Paris, France
2007	Admitted to the ÉCOLE NORMALE SUPÉRIEURE, Paris, France (ENS Ulm Biology, Geology, Chemistry, & Physics track; competitive examination, national rank : 3 out of 872 candidates, 22 admitted)
2005–07	LYCÉE HENRI IV, Paris, France. <i>Classes préparatoires</i> in Biology, Geology, Chemistry, & Physics (intensive, selective undergraduate program)

# **Previous Appointments and Training**

2018-21	Assistant Professor, Tenure-track
	Department of Psychology, AMERICAN UNIVERSITY
	Center for Neuroscience and Behavior, AMERICAN UNIVERSITY
2017-18	Postdoctoral Research Fellow
	Department of Pediatrics, HARVARD MEDICAL SCHOOL
	Division of Developmental Medicine, BOSTON CHILDREN'S HOSPITAL
	Mentor : CHARLES A. NELSON III
2015-17	Postdoctoral Research Fellow, joint appointment
	Department of Brain and Cognitive Sciences, UNIVERSITY OF ROCHESTER
	Department of Pediatrics, HARVARD MEDICAL SCHOOL
	Division of Developmental Medicine, BOSTON CHILDREN'S HOSPITAL
	Mentors : RICHARD N. ASLIN & CHARLES A. NELSON III
2012–15	PhD student, LPNC, UNIVERSITY OF GRENOBLE, France
	Advisors : Olivier Pascalis & Édouard Gentaz
	PhD thesis : Development of facial expression perception
2011–12	Master student, Neurospin, CEA SACLAY, France
	Advisors : Sebastien Marti & Stanislas Dehaene
	Master's thesis : Accuracy of introspection during visual search

2011	Volunteer intern, Brain & Mind Research Institute, UNIVERSITY OF SYDNEY, Australia Supervisor : BERNARD BALLEINE Project : Cortico-striatal consolidation of learning in rats
2008–09	Master student, LSCP, ÉCOLE NORMALE SUPÉRIEURE, Paris Advisor : JÉRÔME SACKUR Project : Time perception in meta-contrast
2008	Undergraduate student, LYON CENTER FOR COGNITIVE NEUROSCIENCE, France Advisors : IRENE CRISTOFORI & ANGELA SIRIGU Undergraduate thesis : Neural basis of social pain using intracranial EEG

## **Research Support, Awards, and Honors**

#### **Current research support**

- 2025-27 1/15/2025-1/14/2027 BRAIN & BEHAVIOR RESEARCH FOUNDATION. Young Investigator Grant (NARSAD). Algorithms for Social Communication in The Developing Human Brain. \$70,000 (~65,500€). Role : PI.
- 2022-25 9/1/2022-8/31/2025 BCS-2122961 NATIONAL SCIENCE FOUNDATION (NSF). Standard Grant, Cognitive Neuroscience & Developmental Sciences Programs. *Grounding computational models* of vision with infant brain data. \$577,409 (~476,100€). Role : PI. Faculty Associates : Drs. Alexis Black & Lauren Emberson.
- 2023-25 7/1/2023-6/30/2025 AMERICAN UNIVERSITY, COLLEGE OF ARTS AND SCIENCES. Collaborative Pilot Research Grant. *Deep Learning Models of Human Object Vision*. \$39,997.27 (~37,700€). Role : Co-PI, with Dr. Bei Xiao.
- 2023-25 11/01/2023-10/31/2025 (NCE) KAREN TOFFLER CHARITABLE TRUST. Toffler Scholar Program. *Uncovering Algorithms for Social Communication in The Developing Human Brain*. \$25,000 (~23,400€). Role : PI.

#### **Completed research support**

- 2022-23 04/08/2022-6/30/2023 AMERICAN UNIVERSITY, COLLEGE OF ARTS AND SCIENCES. Faculty Mellon Fund. *Cognitive understanding of affective communication in early toddlerhood : Pilot studies.* \$2,400 (~2,225€). Role : PI.
- 2022 01/10/2022-5/6/2022 AMERICAN UNIVERSITY, COLLEGE OF ARTS AND SCIENCES. Undergraduate Research Funds Award, to support one part-time undergraduate RA (Natasha Salvatierra). \$1,064 (~986€). Role : PI.
- 2019-20 11/21/2019-11/20/2020 AMERICAN UNIVERSITY, COLLEGE OF ARTS AND SCIENCES. Faculty Mellon Fund. *Dynamics of visual object representations in preverbal infants*. \$1,750 (~1,566€). Role : PI
- 2019-20 05/01/2019-4/30/2020 AMERICAN UNIVERSITY. Faculty Research Support Grant. *Electrophy*siological Measures of Neural Sensitivity to Facial Emotion in Pediatric Social Anxiety. \$20,000 (~17,530€). Role : Co-PI with Dr. Nicole Caporino.
- 2018-19 11/16/2018-11/15/2019 AMERICAN UNIVERSITY, COLLEGE OF ARTS AND SCIENCES. Faculty Mellon Fund. *Electrophysiological Markers of Sensitivity to Facial Emotion in Children with Social Anxiety.* \$4,000 (~3,502€). Role : Co-PI with Dr. Nicole Caporino.

#### Awards and honors

- 2022 INTERNATIONAL CONGRESS OF INFANT STUDIES, Distinguished Early Career Contribution Award
- 2022 ASSOCIATION FOR PSYCHOLOGICAL SCIENCE, APS Rising Star Award
- 2021 DIVERSE INTELLIGENCES SUMMER INSTITUTE, Fellow

- 2018 AMERICAN UNIVERSITY, CENTER FOR TEACHING, RESEARCH AND LEARNING. Teaching Enhancement Grant. \$100 (~85€)
- 2018 HARVARD BRAIN SCIENCE INITIATIVE. Young Scientist Travel Award. \$1000 (~813€)
- 2017 PHILIPPE FOUNDATION. Post-doctoral research award. \$3,000 (~2,616€)
- 2016 MIT CENTER FOR BRAINS, MINDS AND MACHINES (CBMM) Summer Course, Marine Biological Laboratory at Woods Hole, MA
- 2016 PHILIPPE FOUNDATION. Post-doctoral research award. \$3,000 (~2,616€)
- 2015 DOROTHY LEET-AFFDU. Post-doctoral research award. ~\$1,680 (1,500€)
- 2015 GDR COG. NEURO. DEVELOPM. Travel award. \$1,000 (872€)
- 2014 EDISCE DOCTORAL SCHOOL. Travel award. ~\$330 (300€)
- 2013 GDR COG. NEURO. DEVELOPM. Travel award. ~\$650 (578€)
- 2007–12 ÉCOLE NORMALE SUPÉRIEURE. Student fellowship. Full stipend (civil servant status) over 4 years, ~\$80,600 (72,000€). Biology, Chemistry, Physics, and Earth Sciences track (rank : 3/893)
- 2005 3<sup>rd</sup> Prize at the CONCOURS GÉNÉRAL in Biology & Geology, a French academic competition

#### **Publications**

- Ashton K.<sup>^</sup>, Zinszer B. D., Cichy R. M., Nelson C. A., Aslin R. N., & Bayet, L. (2022) Time-resolved multivariate pattern analysis of infant EEG data : A practical tutorial. *Developmental Cognitive Neuroscience*, 101094. doi:10.1016/j.dcn.2022.101094
- 2. **Bayet L.** (2022) How infants learn from a world of faces : Implications for racial biases and maskwearing. *Policy Insights from the Behavioral and Brain Sciences* 9, 65-72. doi: 10.1177/23727322211068007
- 3. **Bayet L.**, Saville A., & Balas B. (2021) Sensitivity to face animacy and inversion in childhood : Evidence from event-related potentials and time-resolved classification of EEG data. *Neuropsychologia*, 107838. doi: 10.1016/j.neuropsychologia.2021.107838
- Bayet L.\*, Perdue K.\*, Behrendt H. F., Richards J. E., Westerlund A., Cataldo J. K., & Nelson C. A. (2021) Neural responses to happy, fearful and angry faces of varying identities in 5- and 7-month-old infants. *Developmental Cognitive Neuroscience*. 47, 100882. doi: 10.1016/j.dcn.2020.100882.
- Bayet L., Zinszer B. D., Reilly E., Cataldo J. K., Pruitt Z., Cichy R. M., Nelson C. A., & Aslin R. N. (2020) Temporal dynamics of visual representations in the infant brain. *Developmental Cognitive Neuroscience*. 45, 100860. doi: 110.1016/j.dcn.2020.100860
- O'Brien A., Bayet L., Riley K., Nelson C. A., Sahin M., & Modi M. (2020) Auditory processing of speech and tones in children with tuberous sclerosis complex. *Frontiers in Integrative Neuroscience* 14, 14. doi: 10.3389/fnint.2020.00014
- Behrendt H. F., Wade M., Bayet L., Nelson C. A., & Bosquet Enlow M. (2019) Pathways to socialemotional functioning in the preschool period : The role of child temperament and maternal anxiety in boys and girls. *Development and Psychopathology* 26, 1-14. doi: 10.1017/S0954579419000853
- Bayet L., Behrendt H., Cataldo J. K., Westerlund A., & Nelson C. A. (2018) Recognition of facial emotions of varying intensities by three-year-olds. *Developmental Psychology* 54, 2240-2247 doi: 10.1037/dev0000588
- Bayet L., Zinszer B. D., Pruitt Z., Aslin R. N. & Wu R. (2018) Dynamics of neural representations when searching for exemplars and categories of human and non-human faces. *Scientific Reports* 8, 13277 doi: 10.1038/s41598-018-31526-y
- Bayet L., Quinn P.C., Laboissière R., Caldara R., Lee K., & Pascalis O. (2017) Fearful but not happy expressions boost face detection in human infants. *Proceedings of the Royal Society B : Biological Sciences* 84, 20171054 doi: 10.1098/rspb.2017.1054
- 11. Zinszer B. D., **Bayet L.**, Emberson L. L., Raizada R. D. S., & Aslin R. N. (2017) Decoding semantic representations from fNIRS signals. *Neurophotonics* 5, 011003 doi: 10.1117/1.NPh.5.1.011003

- 12. **Bayet L.**, Quinn P.C., Tanaka J., Lee K., Gentaz E., & Pascalis O. (2015) Face gender influences the looking preference for smiling expressions in 3.5-month-old human infants. *PLOS ONE* 10, e0129812 doi: 10.1371/journal.pone.0129812
- Damon F., Bayet L., Hillairet de Boisferon A., Méary D., Dupierrix E., Quinn P. C., Lee K., & Pascalis O. (2015) Can human eyes prevent perceptual narrowing for monkey faces? *Developmental Psychobiology* 57, 637-642 doi: 10.1002/dev.21319
- 14. **Bayet L.**, Pascalis O., Quinn P.C., Lee K., Gentaz E., & Tanaka J. (2015) Angry facial expressions bias gender categorization in children and adults : behavioral and computational evidence. *Frontiers in Psychology* 6, 346 doi: 10.3389/fpsyg.2015.00346
- 15. Marti S., **Bayet L.**, & Dehaene S. (2015) Subjective report of eye fixations during serial search. *Consciousness and Cognition* 33, 1-15 doi: 10.1016/j.concog.2014.11.007
- 16. **Bayet L.**, Pascalis O., & Gentaz E. (2014) Le développement de la discrimination des expressions faciales émotionnelles chez les nourrissons dans la première année [The development of emotional facial expression discrimination by infants in the first year of life]. *L'Année Psychologique* 114, 469-500 doi: 10.4074/S0003503314003030

#### In progress

- 1. Kelsey C., Kamenetskiy A., Mulligan K., Tiras C., Kent M., **Bayet L.**, Richards J. E., Bosquet Enlow M.\*, & Nelson C. A.\*(revise & resubmit) Forming connections : Functional brain connectivity is associated with executive functioning abilities in early childhood.
- Yücel M.A.\*, Luke R.\*, ..., Ashton K.^, ... Bayet L., ..., Fracalossi V.^, ... & Zemanek V. (under review) The fNIRS Reproducibility Study Hub (FRESH) : Exploring Variability and Enhancing Transparency in fNIRS Neuroimaging Research. Preprint doi: 10.31222/osf.io/pc6x8
- 3. Neree B.<sup>¶\*</sup>, Casey K.<sup>^\*</sup>, Larrauri C.<sup>#</sup>, Ashton K.<sup>^</sup>, Scott K., Gill J., Simpson E., & **Bayet L.** (to be submitted) Neonatal mimicry of caregivers at home : A feasibility pilot.
- 4. Ashton K.<sup>^</sup>, Vaughan I.<sup>#\*</sup>, Fernandez F.<sup>#\*</sup>, Sugden N., Moulson M., & **Bayet L**. (in prep.) Neural responses to faces of varying gender and race across the first year of life.

^ Graduate trainee; ¶ Postbaccalaureate trainee, # Undergraduate trainee; \* Equal contributions

## **Conference Proceedings**

- 1. Casey K.<sup>^</sup>, Scott K., Ashton K.<sup>^</sup>, Gill, J. Simpson E., & **Bayet L.** (2020) Neonatal imitation of caregivers at home : A feasibility pilot. *Proceedings of the 42th Annual Conference of the Cognitive Science Society*
- Gemignani J., Bayet L., Kabdebon C., Blankertz B., Pugh K. R., & Aslin R. N. (2018) Classifying the mental representation of word meaning in children with Multivariate Pattern Analysis of fNIRS. *Proceedings of the 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'18)*
- 3. Gates M. A., Veuthey T. L., Tessler M. H., Smith K. A., Gerstenberg T., **Bayet L.**, & Tenenbaum J. H. (2018) Tiptoeing around it : Inference from absence in potentially offensive speech. *Proceedings of the 40th Annual Conference of the Cognitive Science Society*
- ^ Graduate trainee

## **Book Chapters**

 Angela Gigliotti-Manessis A.\*, Rutter T. M.\*, Cook K., Merrill L., Korom M., Selvanathan T., the Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG), & Bick J. (2024) Perinatal risk and later intellectual and developmental disabilities (IDD). In : M. G. Valdovinos (Ed.), Intellectual and Developmental Disabilities : A Dynamic Systems Approach. ISBN 978-3-031-66931-6 doi: 10.1007/978-3-031-66932-3\_9

- Bayet L., & Nelson C. A. (2020) The neural architecture and developmental course of face processing. In : Rubenstein J. & Rakic P. (Eds), *Neural Circuit Development And Function In The Healthy And Diseased Brain : Comprehensive Developmental Neuroscience*. pp 435-564. doi: 10.1016/B978-0-12-814411-4.00020-2
- 3. **Bayet L.**, & Nelson C. A. (2019) The perception of facial emotion in typical and atypical development. In : LoBue V., Perez-Edgar K., & Kristin Buss K. (Eds.), *Handbook of Emotional Development*. pp 105-138. doi: 10.1007/978-3-030-17332-6\_6
- \* Equal contributions

## Communications

#### Invited conference and workshop talks

- 1. Learning from babies : How infants understand the visual and affective world. *Research Summit 6 : Precision Rehabilitation Research for children with Neuromotor Disabilities*, Alexandria, VA, USA. October 20, 2023
- 2. Studying neonatal mimicry of caregivers' facial gestures online : Early findings from a feasibility study on Lookit. *ManyBabies 6 Planning Workshop*. Virtual. July 12, 2022
- 3. Learning from babies : How infants understand the visual and affective world. *Autism and Neurodevelopment Research Workshop, Excellence for Autism Center and Neurodevelopmental Disorders, Tours, France.* April 1, 2022
- 4. Time-resolved classification of EEG data. *Pre-conference Day Workshop at the 4th Lancaster Conference on Infant and Early Child Development, Lancaster, UK.* August 20, 2019
- 5. How infants and children understand the visual world. *Capital Area Cognition, Attention, and Perception Conference, George Washington University, DC, USA*. January 25, 2019
- 6. Early development of emotional faces processing : Perceptual and cognitive mechanisms of development and relation to social-emotional outcomes. *International Congress of Applied Psychology* (*ICAP*), *Montréal*, *Québec*, *Canada*. June 26, 2018
- 7. A universal preference for smiles in young infants? Face gender influences the looking preference for smiling expressions in 3.5-month-old human infants. *Focus on emotional development, Swiss Center for Affective Sciences, University of Geneva, Switzerland.* March 9, 2015

## Invited seminar talks

- 1. Department of Psychology, Northwestern University, IL, USA. November 15, 2024
- 2. Laboratory on Brain & Cognition, NIH/NIMH, MD, USA. June 14, 2024
- 3. Department of Psychology, University of British Columbia, BC, Canada. May 10, 2023
- 4. Applied Developmental Psychology Colloquium Series, George Mason University, VA, USA. April 26, 2023
- 5. *Child Development Lab, University of Maryland, MD, USA*. Virtual. March 1, 2023
- 6. Developmental Brownbag Series, Stanford University, CA, USA. Virtual. December 7, 2022
- 7. Vision Seminar Series, Vision Research Center, University of Pennsylvania, PA, USA. Virtual. December 6, 2021
- 8. Developmental Science Program Colloquium Series, University of Maryland, MD, USA. October 20, 2021
- 9. Applied Developmental Psychology Colloquium Series, George Mason University, VA, USA. Virtual. October 7, 2020
- 10. Department of Psychology, Lancaster University, UK. December 12, 2018
- 11. Department of Psychology, Harvard University, MA, USA. November 12, 2018
- 12. Department of Psychology, American University, DC, USA. January 10, 2018
- 13. Graduate Seminar Series, Swiss Center for Affective Sciences, University of Geneva, Switzerland. March 10, 2015
- 14. LIP Lab Seminar Series, University of Grenoble, France. February 16, 2015

## Contributed conference talks and symposia

- 1. **Bayet L.** From responses to representations in developmental neuroimaging. In « Advances in infant neuroscience : What state-of-the-art imaging can reveal about the developing mind? ». Preconference workshop at the *Budapest CEU Conference on Cognitive Development (BCCCD), Budapest, Hungary*. Delivered virtually. January 4, 2024.
- Bayet L., Zinszer B., Cataldo J. K., Reilly E., Cichy R. M., Nelson C. A., & Aslin R. N. Time-Course and Properties of Higher-Order Visual Representations in the Infant Brain. In « Integrating computational and neuroimaging methods to investigate infant cognitive development ». *virtual Biennial Meeting of the International Society on Infant Studies (vICIS)*. July 2020. Symposium co-chair and organizer.
- 3. Bayet L., Zinszer B., Cataldo J. K., Reilly E., Cichy R. M., Balas B., Nelson C. A., & Aslin R. N. Probing the time-course and properties of higher-order visual representations in the developing brain with multivariate EEG decoding. In « Extracting neural representations from EEG and fNIRS signals for studies of development and learning ». *Biennial Meeting of the International Society on Infant Studies* (ICIS), *Philadelphia*, USA. July 2, 2018
- 4. **Bayet L.**, Cataldo J. K., Bosquet Enlow M., & Nelson C. A. Individual differences in Event-Related Potentials to emotional faces from infancy to 3 years : Developmental stability and relation with risk for anxiety. In « Threat perception from infancy to the preschool period : Behavioral and neuroimaging perspectives ». *Biennial Meeting of the International Society on Infant Studies (ICIS), Philadelphia, USA*. July 1, 2018. Symposium chair and organizer.
- Bayet L., Zinszer B., Cataldo J. K., Wu R., Nelson C. A., & Aslin R. N. Multivariate analysis of EEG for face perception research : Implications for learning and development. Pre-conference program on face processing. *Biennial Meeting of the Society for Research in Child Development, Austin, USA.* April 5, 2017
- 6. **Bayet L.**, Pascalis O., Quinn P.C., Lee K., Gentaz E., & Tanaka J. Developmental and computational evidence for an « angry male » bias in face gender categorization. Pre-conference program on face processing. *Biennial Meeting of the Society for Research in Child Development, Philadelphia, USA*. March 18, 2015
- 7. **Bayet L.**, Pascalis O., Quinn P.C., Lee K., Gentaz E., & Tanaka J. Do angry faces look more male to adults, children and machines? *Annual meeting of the GDR Neurosciences Cognitives du Développement, Paris, France.* September 26, 2014

# **Conference poster presentations**

- 1. Lowman O.^, Neree B.¶, Ashton K.^, Aslin R. N., Emberson L. L., Black, & A. K., **Bayet L.** (2024) Infants' perception of partially visible objects : Pilot studies (WIP). *Annual Conference of the Fetal*, *Infant*, & *Toddler Neuroimaging Group (FITN'G)*, *Baltimore*, *MD*, USA.
- Rooney M.<sup>^</sup>, Ashton K.<sup>^</sup>, Lowman O.<sup>^</sup>, Neree B.<sup>¶</sup>, Aslin R. N., Emberson L. L., Black, & A. K., Bayet L. (2024) Comparing infant-aligned artificial neural networks' (ANNs) categorization of objects to actual infant EEG (WIP). *Annual Conference of the Fetal, Infant, & Toddler Neuroimaging Group* (*FITN'G*), *Baltimore, MD, USA*.
- 3. Neree B.¶, Ashton K.^, Aslin R. N., Black A. K., Emberson L. L., **Bayet L.** (2024). Differential Looking Times and EEG as Measures of Visual Representation in Infants. *Biennial Meeting of the International Congress of Infant Studies (ICIS), Glasgow, UK.*
- Lowman O.^, Neree B.¶, Ashton K.^, Aslin R. N., Emberson L. L., Black, & A. K., Bayet L. (2024) Infants' Perception of Partially Visible Objects : Pilot Studies. *Biennial Meeting of the International Congress of Infant Studies (ICIS), Glasgow, UK*
- 5. Ashton K.<sup>^</sup>, Neree B.<sup>¶</sup>, Aslin R. N., Black A. K., Emberson L. L., & **Bayet L.** (2024) Test-retest reliability in multivariate decoding of infant EEG data. *Biennial Meeting of the International Congress of Infant Studies (ICIS), Glasgow, UK*
- 6. Neree B.<sup>¶</sup>, Ashton K.<sup>^</sup>, MacCallum J.<sup>#</sup>, Olivares D.<sup>#</sup>, Aslin R. N., Black A. K., Emberson L. L., & **Bayet L.** (2023) Investigation of visual representations in infants using differential looking time as

compared to electroencephalography. *Annual Conference of the Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG), Santa Rosa, CA, USA.* 

- 7. Ashton K.<sup>^</sup>, Vaughan I.<sup>#</sup>, Sugden N., Moulson M., & **Bayet L**. (2023) The infant negative central ERP component in response to face gender and race. *Annual Conference of the Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG), Santa Rosa, CA, USA.*
- 8. Ashton K.<sup>^</sup>, Zinszer B. D., Cichy R. M., Nelson C. A., Aslin R. N., & **Bayet L**. (2022) Time-resolved multivariate pattern analysis of infant EEG data. *Biennial Meeting of the International Society on Infant Studies (ICIS), Ottawa, Canada*.
- 9. Casey K.<sup>^</sup>, Scott K., Larrauri C.<sup>#</sup>, Ashton K.<sup>^</sup>, Gill J., Simpson E., & **Bayet L.** (2022) Neonatal mimicry of caregivers at home : A feasibility pilot. *Biennial Meeting of the International Society on Infant Studies* (*ICIS*), *Ottawa, Canada*.
- Herbolzheimer A.P., Zinszer B. D., Aslin R. N., Bayet L., Bejjanki V. R., Black A. K., Jaime J., Kabdebon C., Mittal A., Robertson C. E., Wang A. F., Xiao N. G., & Emberson L. L. (2021) What is the best analytic approach for decoding semantic representations in adult fNIRS? *Society of fNIRS (sfNIRS) Virtual Conference* 2021
- 11. Casey K.<sup>^</sup>, Scott K., Ashton K.<sup>^</sup>, Gill J., Simpson E., & **Bayet L**. (2021) Neonatal imitation of caregivers at home : Pre-registered analyses. *Virtual Biennial Meeting of the Society for Research in Child Development (SRCD)*
- 12. Ashton K.<sup>^</sup>, Fernandez F.<sup>#</sup>, Sugden N., Moulson M., & **Bayet L**. (2021) Age specific interactions between face race and face gender in infant ERP response to faces. *Virtual Biennial Meeting of the Society for Research in Child Development (SRCD)*
- 13. Casey K.<sup>^</sup>, Scott K., Ashton K.<sup>^</sup>, Gill J., Simpson E., & **Bayet L**. (2020) Neonatal imitation of caregivers at home : A feasibility pilot. *Virtual Conference of the Cognitive Science Society (CogSci)*.
- 14. Ashton K.\*<sup>^</sup>, Fernandez F.\*<sup>#</sup>, Sugden N., Moulson M., & **Bayet L**. (2020) Age specific interaction between face race and face gender in infant ERP responses to faces. *Virtual Biennial Meeting of the International Society on Infant Studies (vICIS)*.
- 15. **Bayet L.**, Perdue K., Behrendt H., Cataldo J. K., Almanza R., Richards J. E., & Nelson C. A. (2019) Perception of facial emotions of varying intensities in 3-year-olds. *Biennial Meeting of the Society for Research in Child Development (SRCD), Baltimore, MD, USA*. doi: 10.6084/m9.figshare.7871774
- 16. O'Brien, **Bayet L.**, Riley, K., Nelson, C. A., Sahin, M., & Modi, M. (2018) Auditory event related activity in children with Tuberous Sclerosis Complex. *48th Annual Society for Neuroscience Conference, San Diego, CA, CA.*
- 17. Balas B., **Bayet L.**, & Saville A. (2018) Neural sensitivity to face animacy in childhood. *Journal of Vision*, 18, 563-563. *Annual Meeting of the Vision Sciences Society (VSS), St. Pete Beach, FL, USA.*
- 18. **Bayet L.**, Zinszer B., Saville A., Aslin R. N., Balas B., & Wu R. (2018) Probing the time-course of face representations with time-resolved multivariate pattern analyses of EEG signals. *Annual Meeting of the Cognitive Neuroscience Society (CNS), Boston, MA, USA.*
- 19. **Bayet L.**, Pruitt Z., Cichy R. M., Nelson C. A., & Aslin R. N. (2017) Dynamics of audiovisual representations in the adult brain using a child-friendly stimulus set. *Cognitive Computational Neuroscience* (*CCN*), *Columbia University*, NY, USA.
- 20. **Bayet L.**, Cataldo J. K., Reilly E., Cichy R. M., Nelson C. A., & Aslin R. N. (2017) Time-resolved classification of EEG data : Probing the time-course of higher-order visual representations in the infant brain. *Biennial Meeting of the Society for Research in Child Development (SRCD), Austin, TX, USA.*
- 21. **Bayet L.**, Damon F., Méary D., Porcheron A., Russell R., Pascalis O. (2017) Sensitivity to contrastenhanced facial features in 3- to 6-month-old human infants. *Biennial Meeting of the Society for Research in Child Development (SRCD), Austin, TX, USA.*
- 22. Zinszer B. D., **Bayet L.**, Emberson L. L., & Aslin R. N. (2016) Decoding semantic representations from fNIRS signals. *Biennial Meeting of the Society for functional Near Infrared Spectroscopy (SFNIRS)*, *Paris, France.* https://github.com/bzinszer/SfNIRS-2016-demo/
- 23. **Bayet L.**, Pruitt Z., Cataldo J. K., Cichy R. M., Nelson C. A., & Aslin R. N. (2016) Time resolved EEG predicts classification of visual objects in the infant brain. *Flux Conference, Saint Louis, USA*.
- 24. Bayet L., Quinn P. C., Caldara R., Lee, K., & Pascalis O. (2016) Do fearful expressions facilitate

detection of faces in young infants? *Biennial Meeting of the International Society on Infant Studies (ICIS), New-Orleans, USA.* doi: 10.6084/m9.figshare.3386281

- 25. **Bayet L.**, Caldara R., Gentaz E., & Pascalis O. (2015) Early sensitivity to fearful faces in 3.5 months infants. *Biennial Meeting of the Society for Research in Child Development (SRCD), Biennial Meeting, Philadelphia, PA, USA*. doi: 10.6084/m9.figshare.1326659
- Bayet L., Quinn P. C., Tanaka J., Lee, Gentaz E., & Pascalis O. (2014) Gender and facial expression interact in the looking preferences of 3,5-month-olds. *Multidisciplinary Perspectives on Person Perception Workshop, Dartmouth College, NH, USA*. doi: 10.6084/m9.figshare.1037610
- 27. **Bayet L.**, Quinn P. C., Tanaka J., Lee, Gentaz E., & Pascalis O. (2014) Gender and facial expression interact in the looking preferences of 3,5-month-olds. *Biennial Meeting of the International Society on Infant Studies (ICIS), Berlin, Germany.* doi: 10.6084/m9.figshare.1037610
- 28. Marti S., **Bayet L.**, & Dehaene S. (2013) Introspection reveals covert intentions during serial search, *ASSC, San Diego, CA, USA*. doi: 10.6084/m9.figshare.977868
- ^ Graduate trainee; ¶ Post-baccalaureate trainee; # Undergraduate trainee; \* Equal contributions

# **Research Supervision and Mentoring**

## Graduate Students

- KATHERINE VAN DUSEN(PhD student in Behavior, Cognition, & Neuroscience, American University, 2024-present)
- OLIVIA LOWMAN (PhD student in Behavior, Cognition, & Neuroscience, American University, 2023present)
- MATTHEW ROONEY (Master's student in Psychology, American University, 2023-present)
- VICTORIA FRACALOSSI (Master's student in Psychology, American University, 2022-24)
- KIRA ASHTON (PhD student in Behavior, Cognition, & Neuroscience, American University, 2019-24)
- KATHERINE CASEY (Master's student in Psychology 2019-20; PhD student in Behavior, Cognition, & Neuroscience, American University, 2020-22)
- RACHEL NELSON (Master's student in Psychology 2019-21)
- GEMEI LI (Master's student in Statistics, American University, 2018-19), with Prof. D. Gerard

# Service on Thesis & Dissertation Committees

- SIDNEY MURRAY (PhD program in Behavior, Cognition, & Neuroscience, American University, 2023-present)
- CHENXI LIAO (PhD program in Behavior, Cognition, & Neuroscience, American University, 2022present)
- MARISSA MARKO (PhD program in Behavior, Cognition, & Neuroscience, American University, 2020-23)
- GABRIELLE SARLO (PhD program in Behavior, Cognition, & Neuroscience, American University, 2020-22)
- LAURA RICE (PhD program in Behavior, Cognition, & Neuroscience, American University, 2020-21)
- ADRIA MANKUTE (MA program in Psychology, American University, 2019-20)
- ANNA KIRKLAND (PhD program in Behavior, Cognition, & Neuroscience, American University, 2019-20)

# **Undergraduate Students**

- EMMA SACK (Undergraduate capstone student, American University, 2023-24)
- JANE MIKKELSON (Undergraduate capstone student, American University, 2022-23)
- IAN VAUGHAN (Undergraduate RA & capstone student, American University, 2021-23)
- NATASHA SALVATIERRA (Undergraduate RA & student, American University, 2021-22)
- ASIA HORNE (Combined BA/MA student, American University, 2021)

- UJALA HUSSAIN (Undergraduate student, American University, 2021)
- ALENA QUINN (Undergraduate RA & capstone student, American University, 2020-21)
- ALYSSA BLOCK (Undergraduate student, American University, 2019-20)
- FABIOLA FERNANDEZ (Undergraduate student, American University, 2019-20)
- BRADY TUTTLE (Undergraduate student, American University, 2018-19)
- EVE HAUSER (Undergraduate student, American University, 2018)
- NANCY PEREZ (Undergraduate capstone student, American University, 2018-19)
- EMILY HOUGHTON (Undergraduate student, American University, 2019)
- ELIJAH MURPHY (Undergraduate student, American University, 2019)
- PAIGE WEISS (Undergraduate student, American University, 2018)
- SARAH CHUN (Undergraduate student, Harvard College, 2016-17)

## **Research Assistants and Interns**

- RACHEL CORNEY (Post-bac Research Assistant, American University, 2024-present)
- NAOMI TEODROS (Undergraduate Research Assistant, American University, 2024-present)
- ELLI M. ANDERSON (Undergraduate Research Assistant, American University, 2024-present)
- JACK MACCALLUM (Undergraduate Research Assistant, American University, 2022-present)
- BENAZIR NEREE (Post-bac Research Assistant, American University, 2022-24)
- DANIELLA OLIVARES (Undergraduate Research Assistant, American University, 2022-24)
- ANNEMARIE BARBOUR (Undergraduate Intern American University, 2022)
- CAMILA LARRAURI (Undergraduate Research Assistant, American University, 2020-21)
- KIERSTEN MORRIS (Undergraduate Research Assistant, American University, 2019-20)
- KAELA TIDUS (Undergraduate Research Assistant, American University, 2019)
- ALEXIS LLEWELLYN (Undergraduate Research Assistant, American University, 2018-19)
- SOLOMIYA SYVYK (Undergraduate Research Assistant, American University, 2018-19)
- OLIVIA HAJIN HYUN (Undergraduate Intern, American University, 2019)
- HAILEY STREIER (Undergraduate Intern, American University, 2018)
- EMILY REILLY (Post-bac Research Assistant, Boston Children's Hospital, 2016-17)
- JULIA CATALDO (Post-bac Research Assistant, Boston Children's Hospital, 2015-16)
- GABRIELLA RAHAL HADDAD (Undergraduate Intern, Emmanuel College, 2017)

## Trainee fellowships, awards, and grants

- 2023 BENAZIR NEREE (Post-bac Research Assistant), FETAL, INFANT, AND TODDLER NEUROIMA-GING GROUP (FIT'NG) CONFERENCE. Young Investigator Award.
- 2023 KIRA ASHTON (BCaN PhD student), COSMOS CLUB FOUNDATION. Cosmos Scholars Award.
- 2022 KIRA ASHTON (BCaN PhD student), SIGMA XI. Grant in Aid of Research (Spring 2022 cycle).
- 2022 KIRA ASHTON (BCaN PhD student), AMERICAN UNIVERSITY CENTER FOR NEUROSCIENCE AND BEHAVIOR. Summer Research Award.
- 2021 KATHERINE CASEY (BCaN PhD student), AMERICAN UNIVERSITY COLLEGE OF ARTS AND SCIENCES. Robyn Rafferty Mathias Student Research Conference Award.
- 2021 ALENA QUINN (Undergraduate student), AMERICAN UNIVERSITY COLLEGE OF ARTS AND SCIENCES. Robyn Rafferty Mathias Student Research Conference Award.
- 2021 KIRA ASHTON (BCaN PhD student), AMERICAN UNIVERSITY CENTER FOR NEUROSCIENCE AND BEHAVIOR. Summer Research Award.
- 2021 KIRA ASHTON (BCaN PhD student), AMERICAN UNIVERSITY CENTER FOR NEUROSCIENCE AND BEHAVIOR. Travel Award.
- 2021 KATHERINE CASEY (BCaN PhD student), AMERICAN UNIVERSITY CENTER FOR NEUROS-CIENCE AND BEHAVIOR. Travel Award.

- 2020 ALENA QUINN (Undergraduate student), AMERICAN UNIVERSITY SUMMER SCHOLARS & ARTISTS PROGRAM. Summer Research Award.
- 2019 NANCY PEREZ (Undergraduate student), AMERICAN UNIVERSITY DEPARTMENT OF PSYCHO-LOGY. Charles B. Ferster Award.
- 2019 BRADY TUTTLE (Undergraduate student), AMERICAN UNIVERSITY SUMMER SCHOLARS & ARTISTS PROGRAM. Summer Research Award.
- 2017 SARAH CHUN (Undergraduate student), HARVARD COLLEGE RESEARCH PROGRAM. Research Award (Spring & Fall).

## **Teaching Experience**

#### 2018-present Assistant Professor, AMERICAN UNIVERSITY, Washington, DC, USA

- Instructor, Cognitive Neuroscience with Lab, Undergraduate (Spring 2025)
- Instructor, Neuroscience as a Profession, Undergraduate/Graduate (every Fall from Fall 2022 to Fall 2024)
- Instructor, Complex Problems Seminar : How do Babies Think and Learn, Undergraduate (Spring 2022, Spring 2023)
- Instructor, Child Psychology, Undergraduate (Fall and Spring from Fall 2018 to Fall 2022)
- Instructor, Psychology of Affect & Emotion, Undergraduate/Graduate (Fall 2021)
- Instructor, Psychology as a Natural Science, Undergraduate (Spring 2019, Fall and Spring from Spring 2020 to Spring 2021)
- Instructor, Early cognitive and brain development, Undergraduate/Graduate (Fall 2019)
- Guest Lecture, Deep learning in computer vision, Undergraduate/Graduate (Fall 2019)
- Guest Lecture, Developmental Neuroscience, Undergraduate/Graduate (Fall 2018)

## 2018 Postdoctoral Fellow, BOSTON CHILDREN'S HOSPITAL, Boston, MA, USA

- Advanced topics in EEG analysis : Multi-variate pattern analysis (MVPA) with EEG, designed and taught 1h lecture
- Practical introduction to statistical testing, 1.5h lab (course co-leader; with L. Pierce)

# 2017 Research Facilitator, MIT CENTER FOR BRAINS, MINDS AND MACHINES (CBMM) Summer Course, MBL Woods Hole, MA, USA

- Psychophysics and MTurk, 1.5h tutorial (with J. Kim and K. Smith)
- Project tutor : Rational speech model of politeness (with T. Gerstenberg and K. Smith)

#### 2012–15 Teaching Assistant, UNIVERSITY OF GRENOBLE, France (192h EQTD)

- Topics in Cognitive Psych. (infant visual perception), Undergraduate Year 1, 4h lectures (AY 2014-15)
- Perception, Action, Categorization (development), Undergraduate Year 3, 12h tutorials (AY 2014-15)
- Intro. to Developmental Psychology, Undergraduate Year 2, 60h tutorials (AY 2013-14, AY 2014-15)
- Neurophysiology of perception, Undergraduate Year 3, 12h labs (AY 2014-15)
- Evolution & behavior, Undergraduate Year 2, 6h lectures & 72h tutorials (AY 2012-3, AY 2013-14)
- Academic skills, Undergraduate Year 1, 12h tutorials (AY 2014-15)
- Experimental methods for the Social Sciences, Undergraduate Year 1, 12h tutorials (AY 2013-14)
- Workshop « Contributions of Psychology to teaching », Graduate TAs, 1h lecture (2014)

#### Reviewer/referee and editorial activities

#### Editorial board member : Infancy (2024-present)

**For journals, ad-hoc :** Advances in Cognitive Psychology, Affective Science, Autism Research, Biological Psychiatry : Cognitive Neuroscience and Neuroimaging, Cerebral Cortex, Cerebral Cortex Communications, Child Development, Current Biology, Developmental Psychobiology, Developmental Cognitive Neuroscience, Developmental Psychology, Developmental Science, eLife, IEEE Transactions on Information Forensics and Security, Infancy, Infant Behavior and Development, International Journal of Behavioral Development, Journal of Experimental Child Psychology, NeuroImage, PeerJ, PLOS ONE, Psychological Science, Psychonomic Bulletin & Review, Social Cognitive and Affective Neuroscience, Social Neuroscience, Vision Research, Visual Cognition.

**For conferences :** Biennial Meeting of the International Congress of Infant Studies (2024), National SACNAS Conference (2021), Biennial Meeting of the Society for Research in Child Development (2021), International Congress of Applied Psychology (2018)

**For funding agencies :** NIH HCMF study section (2024), NSF ad-hoc (2023), NSF panelist (2022, 2023), NSF *GRFP* (2021, 2022), *Isaac Newton Trust* (2019)

#### Scientific outreach

- 2023 Presentation to K-12 STEM teachers : *Waves, Light, & the Developing Brain.* Part of a summer professional development program for K-12 STEM teachers led by Dr. Boncho Bonev (American University). Virtual, July 13, 2023.
- 2020- Member, *Scientists' Alliance for Communicating Child Development Knowledge*, a group that shares child development science with families, practitioners, teachers, and policy makers.
- 2019- Advisory board member, *Science Ambassador Scholarship*, a full-tuition scholarship for women in STEM.
- 2017- Volunteer scientist, *Skype a Scientist*, a K-12 STEM outreach program.
- 2017-18 Volunteer scientist, *Letters to a Pre-Scientist*, a K-12 STEM outreach program.
- 2017 Speaker, *Harvard Medical School MEDscience*. High school STEM outreach summer program.

#### **Conference/panel organization**

- 2024 Co-moderator, « Deep Learning as a Model of Brain Development ». *Annual Conference of the Fetal, Infant, & Toddler Neuroimaging Group (FITN'G) Baltimore, MD, USA.* September 26, 2024
- 2023 Facilitator, « Career Transitions Workshop, Part 2 : Where do I go from here », organized by Females of Vision et al. (FoVea) at the *Annual meeting of the Vision Sciences Society (VSS), St. Pete Beach, FL, USA*. May 21, 2023
- 2020 Symposium co-chair and organizer, « Integrating computational and neuroimaging methods to investigate infant cognitive development ». *Virtual Biennial Meeting of the International Society on Infant Studies (ICIS)*. July 2020.
- 2020 Organizing committee member, *Capital Area Cognition, Attention, and Perception Conference, George Washington University, DC, USA*. January 24, 2020
- 2018 Symposium chair and organizer, « Threat perception from infancy to the preschool period : Behavioral and neuroimaging perspectives ». *Biennial Meeting of the International Society on Infant Studies (ICIS), Philadelphia, PA, USA.* July 1, 2018

## University and Department service at American University

- 2022- Creator and lead organizer, Journal club on Human vision and Artificial Neural Networks (joint with the lab of Dr. Bei Xiao)
- 2022- Member, Curriculum Committee, Department of Neuroscience
- 2022- Member, Merit committee, Department of Neuroscience
- 2023 Panelist, « Connecting Across the Core : Building Toward the Capstone », Center for Teaching, Research & Learning. March 8, 2023
- 2022 Member, Adjunct Faculty search committee, Department of Neuroscience
- 2020- Member, Executive Committee of the Behavior, Cognition, and Neuroscience PhD program
- 2020-22 Creator and lead organizer, Seminar Series in Cognition & Cognitive Neuroscience, Center for Neuroscience and Behavior
- 2020-21 Member, Undergraduate Curriculum Committee, Department of Psychology
- 2019-20 Member, Faculty search committee, Department of Psychology
- 2018-19 Member, Merit committee, Department of Psychology

## **Professional societies**

- 2022- Member, Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG)
- 2020- Member, Cognitive Science Society (CogSci)
- 2020- Member, Sigma Xi
- 2016- Member, International Congress of Infant Studies (ICIS)
- 2016- Member, Society for functional Near Infrared Spectroscopy (SfNIRS)
- 2021-23 Member, Association for Psychological Science (APS)
- 2021 Member and volunteer mentor-judge (2021), SACNAS
- 2016-23 Member, American Association for the Advancement of Science (AAAS)
- 2015-23 Member, Society for Research in Child Development (SRCD)

# Media

- Guest on the Lobes and Robes podcast. May 9, 2023
- Featured on the *Baby Blog*, by the International Congress of Infant Studies. February 14, 2023
- Research featured in French media : Sciences et Avenir, France 3 Auverge-Rhône-Alpes, Top Santé
- La Nuit des émotions (The night of emotions), Radio Campus Paris. May 30, 2013

# **Professional Development**

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