

# Curriculum Vitae

---

## Holly Rayson

Email: holly.rayson1@gmail.com or h.rayson@isc.cnrs.fr

Telephone: +33649335956

### EDUCATION

#### **PhD in Developmental Cognitive Neuroscience**

*University of Reading, UK*

Date of Award: 31/03/17

Supervisor: Lynne Murray

Thesis: "Development of mirror systems for opaque actions and the influence of early mother-infant interactions"

#### **MSc in Development and Psychopathology**

*University of Reading, UK*

Grade: Distinction

Date of Award: 09/10/12

Supervisor: Lynne Murray

Dissertation: "Atypical infant facial configuration: Effects on adult gaze behaviour and perceptions of attractiveness"

#### **BSc in Psychology**

*University of Warwick, UK*

Grade: First Class Honours

Date of Award: 07/07/10

### ACADEMIC POSITIONS

#### **Postdoctoral Researcher**

*Institut des Sciences Cognitives- Marc Jeannerod, CNRS, France*

Supervisor: Pier Francesco Ferrari

Project: Effects of early experience on socio-cognitive and affective development in macaque monkeys

Dates: 16/10/17 to present

#### **Postdoctoral Research Assistant**

*School of Psychology and Clinical Language Sciences, University of Reading, UK*

Supervisor: Helen Dodd

Project: Neural and behavioural predictors of anxiety when children transition to school

Dates: 01/01/17 to 07/09/17

### RESEARCH INTERESTS

Developmental socio-cognitive and affective neuroscience; developmental psychology and psychopathology; social cognition; emotion regulation; non-verbal communication and facial behaviour; joint attention; mood disorders; affect-biased attention; effects of early social experience and adversity; EEG; eye tracking; MRI; comparative development

### PROFESSIONAL QUALIFICATIONS

**Qualification des Personnels des Etablissements d'Experimentation Animale** (Qualification of Staff of Animal Testing Establishments), Marseille, France (2018)

**BBK-UCL NIRS Training Course**, London, UK (2017)

**Core EEG Skills, EGI Summer School**, Stockholm, Sweden (2013)

## **AWARDED FUNDING**

### **ANR AAPG2019 (Named Postdoctoral Researcher)**

*Agence Nationale de la Recherche (2019- 2024)*

- *Role of the candidate:* Conception and design of project, writing of application

### **Marie Curie Individual Fellowship**

*European Commission (2020- 2021)*

### **Postdoctoral Research Fellowship**

*Fondation de France (2018-Spring 2019)*

### **Postdoctoral Research Fellowship**

*University of Parma (2017)*

### **Transition to Postdoctoral Researcher Grant**

*Medical Research Council (2016- 2017)*

### **Doctoral Training Grant**

*Medical Research Council (2012- 2016)*

### **School of Psychology and Clinical Language Sciences MSc Scholarship**

*University of Reading (2011- 2012)*

## **PUBLICATIONS**

Murray, L., **Rayson, H.**, Ferrari, P.F., Wass, S., & Cooper, P.J. (*under review*). Dialogic book-sharing as a privileged intersubjective space.

**Rayson, H.**, Debnath, R., Alavizadeh, S., Fox, P. F. Ferrari, & Bonaiuto, J.J. (*under review*). Detection and Analysis of Cortical Beta Bursts in Developmental EEG Data.

**Rayson, H.**, Massera, A., Belluardo, M., Ben Hamed, S., & Ferrari, P.F. (2021). Early social adversity modulates the relationship between attention biases and socioemotional behaviour in juvenile macaques. *Scientific Reports*, 1(1), 1-11.

**Rayson, H.\***, Festante, F\*, Paukner, A., Kaburu, S., Toschi, G., Fox, N.A., & Ferrari, P.F. (2021). Oxytocin promotes prosocial behavior and related neural responses in infant macaques at-risk for compromised social development. *Developmental cognitive neuroscience*, 48, 100950.

- \* *Joint first authors*

Ryan, Z., **Rayson, H.**, Morriss, J., & Dodd, H. (*registered report; submitted*). Does early childhood intolerance of uncertainty predict child mental health during the COVID-19 pandemic?

Dodd, H., **Rayson, H.**, Ryan, Z., Bishop, C., & Stuijzand, B. (2020). Trajectories of anxiety when children start school: the role of Behavioural Inhibition and attention bias to angry and happy faces. *Journal of Abnormal Psychology*, 129(7), 701.

**Rayson, H.**, Bonaiuto, J.J., Ferrari, P.F., Chakrabarti, B., & Murray, L. (2019). Building blocks of joint attention: Early sensitivity to having one's own gaze followed. *Developmental Cognitive Neuroscience*, 100631.

Murray, L., Sclafani, V., **Rayson, H.**, De Pascalis, L., Bozicevic, L., & Ferrari, P. F. (2017). Beyond aerodigestion: exaptation of feeding-related mouth movements for social communication in human and non-human primates. Commentary on Keven & Akins target article, Neonatal Imitation in Context: Sensory-motor development in the perinatal period. *Behavioral and Brain Sciences*, 40, e397.

**Rayson, H.**, Bonaiuto, J.J., Ferrari, P.F., & Murray, L. (2017). Early maternal mirroring predicts infant motor system activation during observation of facial expressions. *Scientific Reports*, 7(1), 11738.

**Rayson, H.**, Parsons, C.E., Young, Goodacre, T., K.S., Kringelbach, M.L., Bonaiuto, J.J., McSorley, E., & Murray, L. (2017). Effects of Infant Cleft Lip on Adult Gaze and Perceptions of “Cuteness”. *The Cleft Palate-Craniofacial Journal*, 54, 562-570.

De Pascalis, L., Kkeli, N., Chakrabarti, B., Dalton, L., Vaillancourt, K., **Rayson, H.**, Bicknell, S., Goodacre, T., Cooper, P., Stein, A., & Murray, L. (2017). Maternal gaze to the infant face: Effects of infant age and facial configuration during mother-infant engagement in the first nine weeks. *Infant Behaviour and Development*, 46, 91-99.

**Rayson, H.**, Bonaiuto, J.J., Ferrari, P.F., & Murray, L. (2016). Mu desynchronization during the observation and execution of facial expressions in 30-month-old children. *Developmental Cognitive Neuroscience*, 19, 279-287.

### **TALKS AND POSTER PRESENTATIONS**

**Rayson, H.**, Massera, A., Froesel, M., Gacoin, M., Clavagnier, S., Belluardo, M., Hiba, B., Ben Hamed, S., & Ferrari, P.F. (2021). Longitudinal effects of early social adversity on brain and behavioural development in rhesus macaques. In Functions of Primate Prefrontal Nodes in Complex Social Behaviour. *Symposium at the 19<sup>th</sup> SINS National Virtual Congress.*

**Rayson, H.**, Bonaiuto, J.J., Ferrari, P.F., Chakrabarti, B., & Murray, L. (2021). Effects of early interactions on infant sensitivity to having own gaze followed. In Recognising and Shaping Opportunities for Learning: Neurocognitive Insight into Active Learning in Early Infancy. *Symposium at the Society for Research in Child Development Virtual Conference.*

Massera, A., **Rayson, H.**, Bonaiuto, J., Belluardo, M., Ben Hamed, S., & Ferrari, P.F. (2021). Early social adversity influences executive function in juvenile macaques. *Poster and short talk presented at the NeuroFrance Virtual Conference.*

Massera, A., **Rayson, H.**, Bonaiuto, J., Belluardo, M., Ben Hamed, S., & Ferrari, P.F. (2021). Early social adversity influences executive function in juvenile macaques. *Short talk at the Budapest CEU Virtual Conference.*

Goupil, N., Hochmann, J., **Rayson, H.**, Massera, A., Ferrari, P.F., & Papeo, L. (2021). A preference for face-to-face body dyads in human adults, infants and juvenile macaques. *Poster presented at the Budapest CEU Virtual Conference.*

**Rayson, H.**, Massera, A., Belluardo, M., Ben Hamed, S., & Ferrari, P.F. (2020). Early social adversity influences the relationships between attention biases and socioemotional behaviour in juvenile macaques. *Poster presented at the International Society for Developmental Psychobiology Virtual Conference.*

**Rayson, H.**, Massera, A., Belluardo, M., Froesel, M., Gacoin, M., Ben Hamed, S., Hiba, B., & Ferrari, P.F. (2020). Early social adversity influences the relationship between attention biases, brain development, and anxiety in juvenile macaques. *Poster to be presented at the International Congress of Infant Studies Conference, Glasgow, UK (cancelled due to Covid-19).*

**Rayson, H.** (2019). Social behaviour and its underlying neural correlates across macaque development. *Talk at the University of Maryland, College Park, US.*

**Rayson, H.** (2019). Early sensitivity to having one’s gaze followed. *Talk at the University of Maryland, College Park, US.*

Dodd, H.F., **Rayson, H.**, Ryan, Z., & Bishop, C. (2019). Pre-school behavioural inhibition and attention bias interact to predict anxiety when children start school. *Poster presented at the International Convention of Psychological Science, Paris, France.*

Dodd, H.F., **Rayson, H.**, Ryan, Z., & Lowicka, A. (2019). Learning to attend to threat, a parent-child experimental task. In Temperament and Cognition. *Symposium submitted to the Society for Research in Child Development Conference, Baltimore, US.*

Dodd, H.F., **Rayson, H.**, Ryan, Z., & Bishop, C. (2019). Pre-school behavioural inhibition and attention bias as predictors of anxiety when children transition to school. In Temperament and Cognition. *Symposium submitted to the Society for Research in Child Development Conference, Baltimore, US.*

**Rayson, H.**, Festante F., Toschi G., Kaburu S., Paukner A., Barr C.S., Fox N.A., & Ferrari P.F. (2018). Oxytocin influences neural responses to facial expressions in infant macaques. *Poster presented at the Society for Neuroscience, San Diego, US.*

Dodd, H.F., **Rayson, H.**, & Ryan, Z. (2018). Behavioural inhibition in preschoolers and attention bias for emotional faces. *Poster presented at the Occasional Temperament Conference, Murcia, Spain.*

**Rayson, H.** (2018). Alpha band modulation during observation of facial expressions in early development. *Talk at the University of Maryland, College Park, US.*

Putnam, S., Gartstein, M.A., Acar, I.H., Prokasky, A., Linhares, B., Lecannelier, F...**Rayson, H.**, et al. (2018). The Global Temperament Project: Infant Surgency, Negative Affectivity, and Regulatory Capacity in 31 Countries. *Talk at the International Congress of Infant Studies, Philadelphia, US.*

Dodd, H.F., **Rayson, H.**, Ryan, Z., Inzani, F., Stearn, H., & Whittle, K. (2017). Attention and anxiety in preschool-aged children. In Advances in Child Anxiety. *Symposium conducted at the 3rd International Congress of Clinical and Health Psychology on Children and Adolescents, Seville, Spain.*

**Rayson, H.** (2017). Mu rhythm desynchronization during the observation of facial expressions in children and infants: Influence of early mother-infant interactions. *Talk at the CNRS, Lyon, France.*

**Rayson, H.** (2017). Motor system activity during the observation of facial expressions in children and infants: Influence of early social experience. *Talk at the University of Reading, Reading, UK.*

**Rayson, H.**, Bonaiuto, J, Ferrari, P.F., & Murray, L. (2016). Oscillatory correlates of infant sensitivity to another following their gaze. *Poster presented at the International Congress of Infant Studies, New Orleans, US.*

**Rayson, H.** (2015). Mirror neuron system development and the role of early mother-infant interactions. *Talk at Birkbeck University, London, UK.*

**Rayson, H.**, Bonaiuto, J., Ferrari, P.F., & Murray, L. (2015). Mu rhythm desynchronization during the observation of emotional and non-emotional facial expressions in 30-month-old infants. *Poster presented at the Society for Neuroscience, Chicago, US.*

Bozicevic, L., Tomlinson, M., Schuitmaker, N., Marlow, M.B., Paul, O., **Rayson, H.**, De Pascalis, L., Murray, L. (2015). The effect of culture and early maternal characteristics on later child regulation of frustration. *Poster presented at the Society for Reproductive and Infant Psychology, University of Nottingham, Nottingham, UK.*

**Rayson, H.** (2014). Mu rhythm desynchronization in response to facial expressions in 30-month-old infants. *Talk at the School of Psychology and Clinical Language Sciences Graduate Conference, University of Reading, Reading, UK.*

**Rayson, H. & Murray, L.** (2013). Development of the infant mirror neuron system: Role of early experience. *Poster presented at the School of Psychology and Clinical Language Sciences Graduate Conference, University of Reading, Reading, UK.*

## **TEACHING AND SUPERVISORY EXPERIENCE**

### **PhD Candidate Supervisor (Alice Massera)**

*Institut des Sciences Cognitives- Marc Jeannerod, CNRS, France (2019-present)*

### **MSc and PhD Research Internship Supervisor**

*Institut des Sciences Cognitives- Marc Jeannerod, CNRS, France (2018-present)*

### **MSc Research Placement(s) Supervisor**

*University of Reading, UK (2015-2017)*

### **Undergraduate Research Placement Supervisor**

*University of Reading, UK (2014-2015)*

### **Ad Hoc Undergraduate Teaching Assistant**

*University of Reading, UK (2012-2015)*

Topic: Research skills

### **Undergraduate Teaching Assistant**

*University of Reading, UK (2012-2014)*

Topic: Statistics

### **Undergraduate Seminar Leader**

*University of Reading, UK (2012-2014)*

Topic: Developmental psychology

## **ADDITIONAL ROLES AND OUTREACH**

### **ISC Twitter account (2019-present)**

Manager of the Twitter account for the Institut des Sciences Cognitives- Marc Jeannerod, CNRS.

### **Book Launch, ‘The Psychology of Babies’ by Lynne Murray (2014), Reading, UK**

Contributed to the set-up and assisted with the running of this event hosted by Lynne Murray for mothers who featured in the book and to talk to parents about infant socio-cognitive development.

### **Talk at the West Berkshire Community Hospital (2013), Thatcham, UK**

Rayson, H. (2013). Effects of infant cleft lip on adult gaze behaviour and perception of cuteness. *Talk given as part of an event to share the latest research findings on cleft lip with doctors, nurses, and other staff working with infants with facial disfigurements and their parents.*

## **EDITORIAL CONSULTING**

**Review Editor:** *Frontiers in Psychology* (Editorial Board of Developmental Psychology)

**Ad-hoc Reviewer:** *Developmental Cognitive Neuroscience, NeuroImage, Scientific Reports, PLOS ONE, Psychological Medicine, Frontiers in Psychology, Infancy, Developmental Psychology, Brain and Behaviour, Journal of Applied Developmental Psychology, Cognition and Emotion etc*