Jérôme Prado

Jérôme Prado is Principal Investigator at the French National Center for Scientific Research (Centre National de la Recherche Scientifique, CNRS) in Lyon, France. His lab is located in the Institute of Cognitive Science Marc Jeannerod, which is affiliated with the CNRS and the University of Lyon. He holds a PhD in Cognitive Neuroscience from the University of Lyon. Before joining the CNRS, he was a postdoctoral fellow in the Department of Psychology at the University of Michigan, Ann Arbor, and a Research Assistant Professor in the Department of Communication Sciences and Disorders at Northwestern University. Jérôme's research focuses on developmental cognitive neuroscience, using approaches that integrate behavioral and brain imaging measures. One line of research concerns the brain systems supporting the acquisition of mathematical skills in children. Another addresses the neural bases and development of logical reasoning. Jérôme has received grants from the US National Institute of Child and Human Development, the French National Research Agency, and the European Commission. He has published widely in journals such as Cerebral Cortex, Developmental Science, Neuron, Journal of Cognitive Neuroscience, Neuroimage, Cognition, Human Brain Mapping and Cortex.

Vivian Reigosa-Crespo

Vivian Reigosa-Crespo is a senior researcher at the Cuban Center for Neuroscience (CNEURO) in Havana, Cuba. Her lab is part of the Applied Neuroscience Unit of CNEURO. At present, she serves as Deputy Director at CNEURO and previously, she served as Director of Research. Vivian has a doctorate in psychology from the Havana University. She received her postdoctoral training at the Institute of Cognitive Neuroscience of the University College of London, UK. She has published articles and several book chapters about developmental cognitive neuroscience. Currently, she is interested in the neural basis of mathematical cognition and developmental dyscalculia. She is also involved in the translation of several key neuroscience findings on learning and the brain for educators and educational settings. At the moment, her research focuses on implementing school-based programs for improving neurocognitive development in different Latin American countries. Vivian is a member of the Research Council of the Cuban Biotechnological Organization (BioCubaFarma). She is also affiliated with the Cuban Society of Clinical Neurophysiology and the Third World Organization for Women in Science. She received an award from the National Research Council of Cuba and the Medal for Cuban Education from the Ministry of Higher Education.

United Nations Educational, Scientific and Cultural Organization

International Bureau of Education

UNESCO International Bureau of Education

The International Bureau of Education is an intergovernmental organization that operates under the United Nations Educational, Scientific and Cultural Organization (UNESCO). Its core mandate is to provide all 195 Member States and Associate Member countries with the support necessary to build robust and resilient education systems that can provide high-quality education and effective learning opportunities to all learners throughout life.

The IBE's programmes and activities centre upon innovative solutions and assistance to governments in responding to the challenges they face in their education systems. More specifically, the IBE's areas of expertise are those that most directly impact the quality of education, such as the curriculum, learning and the assessment of learning.

Since its creation in 1925, the Institute has collaborated with most of UNESCO's Member States and has striven to provide them with high-level expertise and services tailored to their needs.

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MONDAY, 12 DECEMBER 2016

IBE LEARNING SERIES

Brain research, teaching, and learning in the 21st century: Making connections

An event co-organized by UNESCO International Bureau of Education (IBE) and the International Brain Research Organization (IBRO)

PROGRAMME

10.00-10.15
Welcome and opening remarks

Mmantsetsa Marope, Director, UNESCO International Bureau of Education (IBE)
Tasia Asakawa, Director of Development & Communications, International Brain Research Organization (IBRO)

10.15-12.15
Panel presentations: 21st Century Education and the Learning Brain

Moderator: Daphné Bavelier, University of Geneva/ University of Rochester

What should all teachers know about the learning brain?
Paul Howard-Jones, University of Bristol, UK

Educators as neurocognitive enhancers: Moving on from research to practice
Vivian Reigosa-Crespo, Cuban Neuroscience Center, Cuba

Nurturing learning from early childhood to adolescence: Interventions and individual brains
Amedeo D'Angiulli, Carleton University, Canada

The importance of parents' "number talk" for the development of children's mathematical brain
Jérôme Prado, Centre National de la Recherche Scientifique, France

Social synchrony and mapping connections in the classroom
Ross Cunnington, Queensland University, Australia

12.30-13.30
Lunch break

13.30-14.45
Roundtable: The Neuroscience of Learning and Teaching in the 21st Century: Prospects and Challenges

Moderator: Pierre Barrouillet, University of Geneva/ Director, Archives Jean Piaget

Participants:
Ross Cunnington, Queensland University, Australia
Amedeo D'Angiulli, Carleton University, Canada
Paul Howard-Jones, University of Bristol, UK
Jérôme Prado, Centre National de la Recherche Scientifique, France
Vivian Reigosa-Crespo, Cuban Neuroscience Center, Cuba

14.45-15.00
Concluding remarks
Mmantsetsa Marope, Director, UNESCO IBE

15.00-16.00
Coffee and light refreshments

Open to the public but registration in advance is encouraged. You may register for the morning session, the afternoon session, or for both.

RSVP at: ibe.director@unesco.org; Tel. +41.22.917.78.00.

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United Nations Educational, Scientific and Cultural Organization

International Bureau of Education

PARTICIPANT BIOGRAPHICAL NOTES

Mmantsetsa Marope

Mmantsetsa Marope assumed the role of Director of the IBE in 2014. Previously, she held several posts at UNESCO Headquarters in Paris, including the Director of the Division for Basic to Higher Education and Learning. Over three decades of her experience in education includes 10 years at the World Bank, 11 years teaching at the University of Botswana, two years as Executive Secretary of ERNESA (Educational Research Network in Eastern and Southern Africa), and extensive consultancy and advisory services to Ministries of Education, Regional Economic Communities, ADEA (Association for the Development of Education in Africa), bilateral and multilateral agencies, and education research networks. Through her career, Dr. Marope built extensive experience in all levels of education and training; both formal and non-formal education; basic research; policy research and policy dialogue; education sector analysis; development of sector reform programs responsive to national economic and social development challenges; capacity assessment including the design and implementation of capacity development programs; monitoring and evaluation; program impact assessment; resource mobilization; efficient resource utilization; building and engendering international partnerships for sector development; and business development. She is reputed for her contribution and leadership in establishing professional communities of practice as well as strengthening their capacities, including the mentoring and training of junior researchers and professionals. Her publications cover a wide range of areas including: education and national development; skills development, shared growth and competitiveness; education and poverty reduction; education sector analyses; education policy, planning and management; capacity development; strategic partnerships for education development; innovation and best practices in education; women in higher education; early childhood care and education; curriculum; teaching; and award-winning Setswana novels.

Tasia Asakawa

Tasia Asakawa is Director of Development and Communications at the International Brain Research Organization (IBRO). She works on building global partnerships and membership to support neuroscience research, teaching, learning and advocacy around the world; developing, planning and implementing strategic communications to promote brain awareness, brain research and achievements of individual neuroscientists and research teams; and reinforcing and advancing the work of the IBRO community to realize the organization's mission and objectives.

Daphne Bavelier

Daphne Bavelier is an internationally-recognized expert on how humans learn. In particular, she studies how the brain adapts to changes in experience, either by nature - for example, deafness - or by training - for example, playing video games. Initially trained in Biology at the Ecole Normale Superieure de Paris, she then received a PhD in Brain and Cognitive Sciences from MIT and trained in human brain plasticity at the Salk Institute. Her work shows that playing fast-paced, action-packed entertainment video games typically thought to be mind-numbing actually benefits several aspects of behavior. Exploiting this counter-intuitive finding, her lab now investigates how new media, such as video games, can be leveraged to foster learning and brain plasticity. Daphne now directs a Cognitive Neuroscience research team at the University of Geneva, and at the University of Rochester. She is also a co-founding advisor of Akili Interactive, a company which develops clinically-validated cognitive therapeutics that exploit high-quality video games, and a steering committee member on the World Economic Forum's global agenda project "New Vision for Education: Unlocking the potential of technology».

Pierre Barrouillet

Pierre Barrouillet is Professor of Developmental Psychology, at the University of Geneva, and Director of the Archives Jean Piaget. He began his career as a school teacher and school psychologist. He then became a professor at the Université de Bourgogne in France, before moving on to his current position at the University of Geneva. Apart from his studies on the development of conditional reasoning, Pierre is also interested in numerical cognition and working memory. He is associate editor of the Journal of Experimental Psychology: Learning, Memory, and Cognition, will be associate editor of the Journal of Experimental Psychology: General, and is a member of the editorial boards of Psychological Science, Cognitive Development, and Thinking and Reasoning.

Ross Cunnington

Ross Cunnington began research examining brain processes underlying the preparation for voluntary action during his PhD at Monash University, Melbourne, Australia. Between 1998 and 2001, he was a Postdoctoral Research Fellow at the University of Vienna, where he began research with functional MRI brain imaging, examining the supplementary motor area and its contribution to the planning and readiness for action. He returned to Australia as a Senior Research Fellow at the Florey Institute of Neuroscience, then, in 2007, he established his lab at the University of Queensland, where he is now appointed as a Professor and Senior Principal Research Fellow in the School of Psychology and the Queensland Brain Institute. Ross conducts research on the brain processes underlying the planning for voluntary action and the ability to perceive and understand the actions, intentions, and emotions of others through neural «mirroring» processes. His recent research in this area has focused on the automatic brain processes that lead us to empathize with others. Learn more via this TEDx talk. Ross is also Deputy Director and a Chief Investigator of the Australian Science of Learning Research Center, linking the knowledge and research methods of neuroscience on how the brain learns with practices in education and learning. Within this Center, he examines the importance of social relationships in the classroom and how neural «synchrony» between people in their brain responses is related to mutual engagement in learning activities and ultimately learning outcomes.

Amedeo D'Angiulli

Amedeo D'Angiulli completed his Laurea degree at the University of Padua (Italy) in general and experimental psychology. Although his training was multidisciplinary, with a minor in human sciences (Ethology, Anthropology, Human Development, Philosophy of Science and Epistemology, under mentorship of the late Prof Gabriele Di Stefano), he started to be involved in research, working in the Gateano Kanisza and Fabio Metelli's perception labs with Osvaldo da Pos. After spending one year at the University of Reading (UK), he joined John M. Kennedy's lab at the University of Toronto and later Linda Siegel's lab at the Ontario Institute for Studies in Education (OISE), continuing his work on behavioral correlates of neural plasticity in blindness and dyslexia, respectively. From there, he went to complete his MA and PhD at Northeastern University, supervised by Adam Reeves, and working on visual mental imagery. His postdoctoral work was in Educational and Pediatric Psychology at The University of British Columbia, where he became a member of the Human Early Learning Partnership and the Brain Research Center under the mentorship of David Stapells. After working for two years in the British Columbia's Children's Hospital he was awarded a Canada Research Chair position at Thompson Rivers University, Kamloops B C, where he was the founding director of the Center for Education and Early Development Studies (CEEDS). Since 2007, he has been at Carleton University, Ottawa. Amedeo's research focuses on developing an ecological naturalistic approach based on converging evidence methods (behavioral measures, verbal reports and neuroimaging) to investigate the interaction between perception and higher neurocognitive processes (executive attention, imagery, reading, episodic memory and pragmatic reasoning) in children and adults. He has received numerous awards and funding from National and Provincial agencies in Canada and internationally. He has over hundred research contributions of different kinds, with over fifty peer reviewed publications, and serves in the boards of several journals as editor and/or reviewer, including Frontiers journals.

Paul Howard-Jones

Paul Howard-Jones is Professor of Neuroscience and Education at the Graduate School of Education, University of Bristol. He was a member of the UK's Royal Society working group on Neuroscience and Education (2011). Paul has authored numerous reviews and one of the first text books in this area (Routledge, 2010), worked with the UK's Wellcome Trust and Educational Endowment Foundation in their efforts to launch their major funding program for Neuroscience and Education in 2014, and has participated in many international academic and public debates regarding the interrelation of these two diverse subject areas. In the UK, he is more widely known for his appearances and writing for TV and radio, and his second book, A Short History of the Learning Brain, will be published by Routledge in 2017. Before becoming a psychologist and a neuroscientist, he trained and worked as a secondary school teacher, and then as a trainer of teachers and inspector of schools.